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ABSTRACT

This study was conducted to facilitate future statewide decision-making by obtaining data on all students, both full-time and part-time, who had enrolled in Virginia Community College System occupational-technical programs at any time from fall 1966 through fall 1969. Graduates and non-graduates, as well as those who changed to or from occupational-technical curricula during their studies, were included. A student questionnaire was used to collect data from students about their postcollege activities, current employment, and evaluations of their college experiences. In addition, non-respondents were contacted by telephone to determine reasons for not responding. A total of 11,623 former students (3,422 graduates and 8,201 non-graduates) were identified. Usable questionnaires were returned by 6,387 students, including 73 percent of the graduates and 56 percent of the non-graduates. Findings for the total sample and for various subgroups are reported. Data is presented pertaining to curriculum area, personal characteristics, socioeconomic background, and academic achievement. Tables of data, the college data form, the student questionnaire and accompanying letters, the questionnaire form used by telephone interviewers, and a list of the limitations of the study are appended. (DC)

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A PROFILE OF FORMER OCCUPATIONAL-TECHNICAL STUDENTS

Research Report No. 2

by

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The purpose of this report is to describe former occupational-technical students at Virginia community colleges in terms of demographic characteristics, socioeconomic background, and academic achievement while attending the community colleges.

The report is organized into three sections. The introduction provides an overview of the total study, including the major objectives and research questions, the planning and procedural aspects, and limitations of the study. Readers who are not especially concerned with the research methodology may prefer to skip this section. The next section focuses on the salient findings related to selected characteristics of former students, including differences between graduates and nongraduates of various programs and between levels of graduates. The third section presents a summary and conclusions with recommendations for further research. Readers who wish to inspect results in detail are referred to tables located in Appendix A.

This report (Research Report No. 2) is based on a followup study and includes a complete description of the procedures used in conducting the total study. It is the first in a series concerned with community college students in Virginia. Two companion reports describe the postcollege activities of former students (Eyler, Kelly and Snyder, 1974 - Research Report No. 3) and evaluations of their community college experience and current employment (Trufant, Kelly and Pullen, 1974 - Research Report No. 4).

Overview of the Total Project

Since its establishment in 1966, the Virginia Community College System (VCCS) has served a rapidly increasing number of students in a variety of occupational-technical and transfer programs. By 1980, huge sums will be required to provide additional educational programs, staff, and facilities for a projected enrollment of 86,500 students. A majority of these students will enroll in occupational-technical programs. Planning for such expansion must be based on information about incoming students' educational and occupational needs, on former students' employment and related activities, and on the extent to which community college experiences helped in the career development of former students.

Although the large majority of Virginia community college graduates from 1966 to 1971 were enrolled in occupational-technical programs, comprehensive and accurate information about former students in these programs has not existed. Furthermore, little was known about the even larger number of students who discontinued attendance without completing their programs of study. To meet this need, Dana B. Hamel, Chancellor of the VCCS, authorized this study. The information presented here therefore represents an important step toward supplying an improved basis for decision making which affects many thousands of Virginia citizens.

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Objectives of the Project

There were three major purposes of the project: to describe former occupational-technical students at Virginia community colleges, to assess students' postcollege activities and achievements, and to have students evaluate their college experience and current employment. Five major objectives were formulated, with accompanying research questions for each, as follows:

A. To identify selected personal and demographic characteristics of former students in occupational-technical programs:

   1. What are the characteristics of former students in terms of sex, race, age, marital status, home residence, parents' education, father's occupation, and academic achievements (e.g., type of degree completed to date, type of curriculum last enrolled in or completed, cumulative GPA and total number of credits earned)?

   2. What related socioeconomic and residency characteristics are discoverable?

B. To identify postcollege activities of former students:

   1. What types of employment have they engaged in since leaving the community colleges?

   2. What proportion have engaged in activities directly related to their community college training and education?

   3. What were their initial and present salaries?

   4. What proportion have found employment within their home localities or within Virginia?

   5. What proportion have continued their education and how consistent was that continued education with their community college program?

C. To study the attitudes of former students toward their community college experience and current employment:

   1. How do they evaluate aspects of their college experience such as instruction, curriculum, facilities, social activities, college environment, and counseling and placement services?

   2. How do they evaluate their present employment in such matters as salary, nature of their work, relations with co-workers, and opportunity for growth?

   3. What factor(s) influenced students to attend community colleges or enroll in specific occupational-technical programs?

D. To study patterns of student retention and withdrawal:

1. How do retention and withdrawal rates of occupational-technical students vary among programs and types of degree earned?

2. What are the reasons why nongraduates did not complete their community college program?

3. What were the educational goals of nongraduates when they entered the community college, and were those goals achieved?

4. What proportion of the students completed the program of their first choice? What proportion changed programs? Among those who made the change, what reason(s) did they give?

E. To examine differences among graduates and nongraduates and among the several types of graduates in terms of their characteristics, postcollege activities, and personal evaluations of college experience and employment:

1. What were the differences between graduates and nongraduates by programs and levels of graduation in their:

a. Selected personal and social characteristics and prior academic achievement?

b. Employment activities such as starting and current salary, types of job positions, and location of employment?

c. Educational activities after leaving the community college?

d. Attitudes toward certain aspects of their community college education?

e. Attitudes toward certain aspects of current employment?

Procedures

The procedures for identifying the study population, developing the data instruments and other related materials, collecting, processing, and analyzing the data are described in this part. Samples or copies of data-gathering instruments and related materials can be found in Appendices B through J. Limitations and Definition of Terms are included in Appendices K and L.

The Study Population

The study population consisted of all former students, both part-time and full-time, enrolled in a Virginia community college occupational curriculum at any time from fall 1966 through fall 1969. Graduates and nongraduates were included. Students known to have changed from occupational-technical to other curricula were included, as were those who changed to occupational-technical programs from other areas. A total of 11,623 former occupational-technical students -- 3,422 graduates and 8,201 nongraduates -- were identified. They had attended 13 colleges during the selected time frame (Table 1).

Data Instruments

Two instruments were developed for the study. The college data form (Appendix B) was used to collect names and other data about former students qualifying for inclusion in the study. Each participating college recorded the individual student's name, social security number, mailing address, sex, race, dates of enrollment, curriculum enrolled in or completed, number of credits earned, cumulative grade point average, type of degree earned, and year of graduation. Codes and instructions (Appendix C) for collecting and recording data from the student permanent records were developed to guide college personnel. These data were converted to a computer file from which mailing labels were prepared.

The student questionnaire (Appendix D) was designed to elicit information from former students about their postcollege activities, current employment, and evaluations of their college experiences. Questionnaire items were developed to provide answers to the specific research questions listed previously in this report. Responses to the questionnaire were entered onto computer tapes by optical scanning in order to reduce errors and expenses associated with keypunching.

Mailing Procedure

Two data collection techniques helped minimize time requirements and costs. First, all mailings were contracted to a private service bureau which used automated mailing procedures; and second, respondents and "undeliverable" subjects were removed from successive mailing lists through the use of a computer program.

Followup studies present special problems of satisfactory return rate on mailed questionnaires. Four mailing contacts helped maximize percentage of completed questionnaires, as noted in the following tabulation:

Mailing Sequence

Contact Number	Nature of Contact	Contact interval (in days)
1	Initial questionnaire	-
2	Reminder postcard	6
3	Second questionnaire with cover letter	6
4	Final followup letter	8

The initial mailing consisted of a questionnaire and reply envelope. Six days later, a postcard (Appendix E) was mailed as a reminder to return the questionnaire and expressing thanks if it already had been returned. Six days after the postcard mailing, a copy of the original questionnaire, a cover letter (Appendix F), and reply envelope were sent to nonrespondents. The fourth and final mailing, consisting of a followup letter (Appendix G), was sent to an updated list of nonrespondents eight days after the third mailing and 20 days after the initial mailing. This followup letter reminded the nonrespondent that his questionnaire had not been received and urged him or her to complete and return it promptly. The cut-off date for using returned questionnaires was set at seven weeks after the first mailing.

The number of returned questionnaires increased after each mailing contact (Appendix H). About 20 percent of the total completed questionnaires were received nine days after the initial mailing. During this period nearly all of the undeliverable envelopes were returned. An additional 28 percent of the completed questionnaires were returned immediately following the mailing of the reminder postcard. Thirty-two percent more were received between the third and fourth mailing contacts. Twenty percent were received after the final followup letter. The number of questionnaires being returned decreased gradually until the cut-off date.

The pattern of returned questionnaires clearly demonstrated the value of each successive mailing contact. Successive mailing contacts are thus recommended for contacts of former students who have been out of college for several years.

Although a sample of nonrespondents was contacted by telephone following the mailing contacts, these calls were for the purpose of investigating nonresponse bias, not to increase the questionnaire return rate.

Percent of Returns

Usable questionnaires were received from 61 percent of those assumed to have received them -- 73 percent for graduates and 56 percent for nongraduates (Table I). This is a highly satisfactory

rate of return for a followup study of former students. Twelve percent of the questionnaires were returned as undeliverable either by the post office or by the students' relatives.

Nonresponse Bias

To check nonresponse bias, a five percent sample of nonrespondents from each college was randomly selected for telephone interviews by college personnel. An interview instrument (Appendix I) was designed to obtain selected information from the student questionnaire. Written guidelines (Appendix J) were provided for conducting the interviews.

Prior to the telephone interviews, a workshop was used to train interviewers in the procedures and techniques of interviewing. The workshop gave opportunities for each prospective interviewer to act as interviewer and interviewee. The workshop and written instructions provided uniform procedures for eliciting and recording the interviewee responses.

Several methods were used to detect differences between the two groups (including Chi square, T test, median test and simple comparisons of medians and percentages). Only a few differences were found to be significant (Table 2).

Fathers of nonrespondents were found to be somewhat better educated than fathers of respondents.

Nonrespondents reported significantly higher initial salaries than the respondents. However, present salary levels did not differ significantly. Both groups were asked to rate the quality of their college preparation. The telephone respondents were more positive than the mail respondents. They differed significantly on their rating of quality of technical knowledge.

Opinions on four areas of college experience were requested -- shop and laboratory instruction, academic instruction, counseling and an overall opinion. Again, telephone respondents were more positive in all four areas, but only responses on counseling and the overall category were significantly different. Finally, the two groups differed in their job satisfaction. Telephone respondents were much more likely to rate their job satisfaction superior or good.

The findings indicate that telephone contacts with nonrespondents tend to elicit more positive responses on opinion questions than when the same opinions are given through the mail. The authors believe that the method of eliciting response, rather than inherent differences in opinions of respondents and nonrespondents, caused the differences.

With the possible exception of those areas discussed above, it can be assumed that the data are representative of the entire study population.

This section describes former occupational-technical students in terms of their curriculum of enrollment, their demographic characteristics, socioeconomic backgrounds and academic achievements at the community college.

Findings for the total sample are reported, and results for various subgroups are also presented and compared. The total group of respondents is sometimes used for comparison purposes, but comparisons are also made between subgroups and within subgroups. It is important for the reader to be aware of the comparison group being described. Figures and summary tabulations are used to highlight certain significant findings and differences among subgroups. The related tables are located in Appendix A.

Curricula of Former Occupational-Technical Students

Respondents in this report were graduated from or enrolled in 99 separate occupational-technical curricula (Table 3). In some cases, two or more related curricula were combined to form a curricular group, such as Business Management/General Business, Auto Trades or Building Trades. For the purpose of data analysis, curricula were organized into six areas -- business, communications and media, engineering, health services, public service, and other -- as shown in the tabulation which follows. The number of respondents is shown for each curriculum and curricular area.

Distribution of Respondents by Curriculum or Curricular Groups

	All Respondents N
Business	
Accounting Technology/Accounting	371
Data Processing (Program/Unit Record)	660
Data Processing (Mach. & Comp. Opr./Keypunch)	97
Business Management/General Business	1,104
Hotel, Restaurant & Institutional Management	20
Merchandising Management/General Merchandising	67
Real Estate Management	2
Stenography/Clerical Studies	189
Secretarial Science	705
Sub-Total	3,215

	All Respondents N
Communications and Media	
Commercial Art/Printing	146
Sub-Total	146
Engineering	
Architectural Technology	109
Aeronautical Technology	2
Automotive Technology	46
Auto Trades (Analysis & Repair, Body Repair, Diagnosis, Engine, Diesel, Auto Mechanics)	121
Chemical Technology	4
Civil Engineering Technology/Civil Technology	67
Drafting and Design Technology/Drafting and Design	380
Drafting Trades (Drafting, Mech., Arch., Struct.)	198
Industrial Management/Technology	53
Electronic Technology/Electrical Technology	442
Electronic Trades	217
Machine Technology/Trades	156
Marine Technology	18
Mechanical Engineering Technology/Mechanical Technology	160
Building Trades (Air Cond. and Refr., Masonry, Plbg., Sh. Metal, Weld., Carpentry)	79
Textile Management	32
Cosmetology*	25
Sub-Total	2,109
Health Services	
Dental Laboratory Technology/Dental Assistant	22
Medical Laboratory Technology	1
Medical Records Technology	3
Mental Health Technology	2
Mortuary Science	9
Nursing	245
Practical Nursing	43
Radiological Technology	8
Sub-Total	333

*Cosmetology students were inadvertently included in the Engineering Curriculum at an early stage of data analysis. They are of insufficient numbers to affect the findings of this report, and it would have been prohibitively costly in terms of time and effort to have performed a later total disaggregation.

	All Respondents N
Public Service	
Community & Social Service Technology/Assistant	2
Fire Science/Firefighting	63
Recreation and Parks Leadership	1
Police Science/Corrections/Law Enforcement	315
Environmental Technology	13
Sub-Total	394
Other	
Agricultural Business Technology	46
Forest Technology	14
Teacher Aide (Library/Audio Visual)	25
Developmental/Unclassified	105
Sub-Total	190
TOTAL	6,387

The largest number of respondents was enrolled in business curricula (3,215). They comprised slightly more than 50 percent of the total respondents. Approximately 33 percent were in engineering curricula (2,109). Of the remaining 16 percent, two percent were in communications and media (146); five percent, in health services (333); six percent, in public service (394); and three percent, in other curricula (190).

Approximately one third of the respondents were graduates (Table 4). Of these, nearly half were in the business area, and one third were in the engineering area. The large majority of graduates (63%) earned the AAS degree (17 percent earned diplomas and 20 percent earned certificates).

Two-thirds of the former occupational-technical students had not graduated. Business and engineering students comprised 84 percent of this nongraduate group. The percentages of nongraduates within each curricula are shown in the following tabulation:

Percentage of Respondents Who Were Nongraduates By Curricular Area

Public Service	81%
Communications and Media	77
Business	68
Engineering	61
Other	58
Health Services	42

Students in public service curricula were the least likely to graduate, and those in health services were most likely to graduate. For a more detailed breakdown of nongraduates by curricular concentration, refer to Table 5.

Demographic Characteristics

This part describes the former occupational-technical students in terms of the following demographic characteristics: sex, race, age, marital status, and home residence.

Sex

Men generally comprised 69 percent of all the respondents (Table 6), but for minority respondents the proportion of men and women was almost equal.

Men comprised 64 percent of the total graduate group and 73 percent of the nongraduate group. As these figures indicate, women were more likely to graduate than men: 43 percent of the women graduated whereas 34 percent of the men graduated (Table 7).

Men and women showed different preferences for curricular areas (Table 8). As shown in Figure 1, four of six curricular areas were predominately comprised of men, particularly the engineering and public service areas (97% and 96%). Women predominated in the health services area (92%). Men and women were more nearly equally represented in business. Several programs had either no men or no women enrollees (Table 3).

The distribution of curricular choices within the male and female groups is shown in the following tabulation:

Distribution of Curricular Choices
Within Male and Female Groups

	Men	Women
Business	40%	74%
Communications and Media	2	3
Engineering	46	3
Health Services	1	16
Public Services	8	1
Other	3	3
TOTAL	100	100

Among men, 46 percent were enrolled in engineering and an additional 40 percent were in business areas (Table 9). Former women students were overwhelmingly enrolled in business (74%), and an additional 16 percent were enrolled in health services.

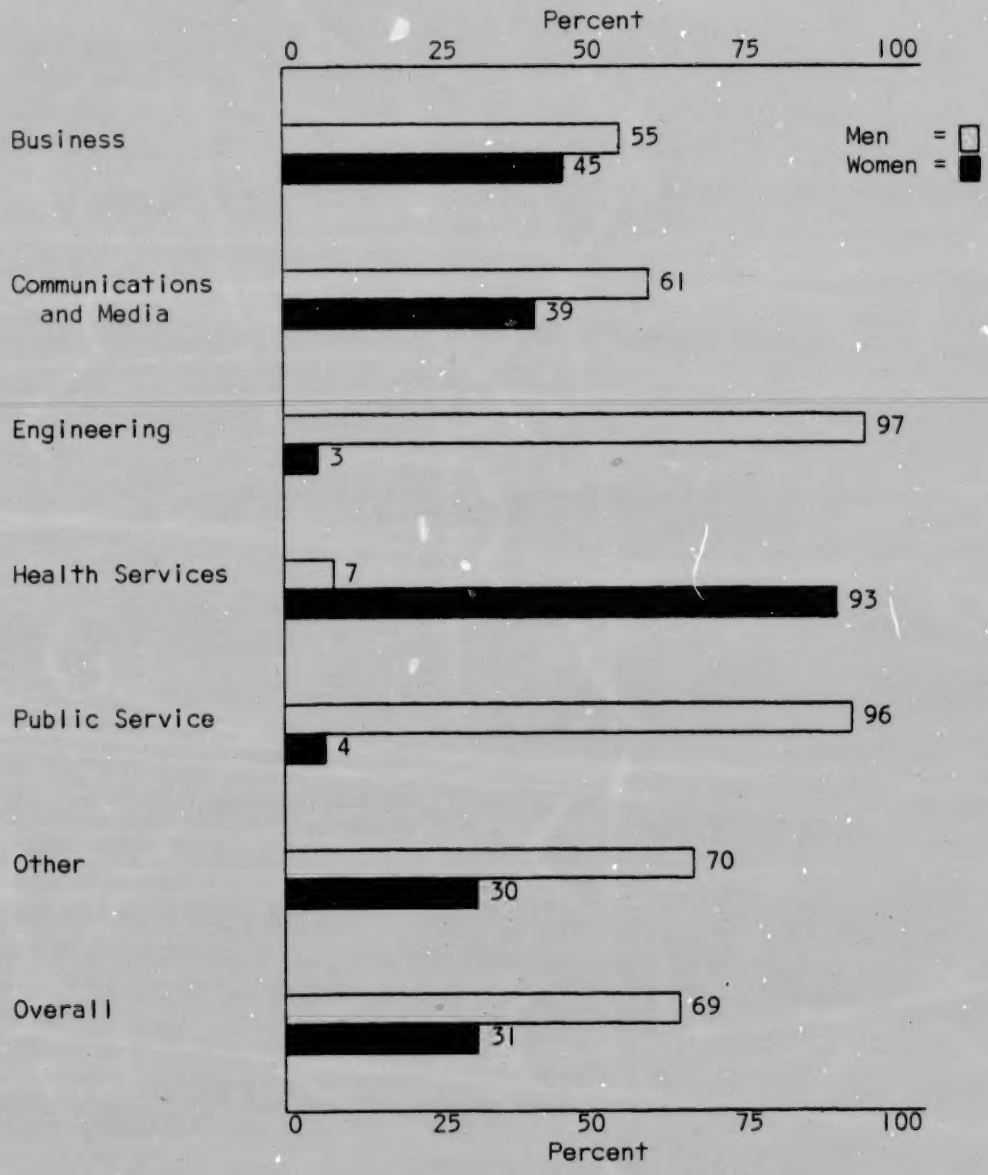

Figure 1. Sex Distribution of All Respondents By Curricular Areas

The curricular choices within groups of men and women graduates and nongraduates followed patterns similar to all men and all women (Tables 10 and 11).

In comparing all graduates, men predominated in AAS and diploma programs (65% and 98%), and women predominated in certificate programs (70%) (Table 12). However, the distribution of types of awards within each sex group is quite different, as noted in the following tabulation:

Distribution of Awards Within Each Sex Group

	Men	Women
AAS	64%	60%
Diploma	26	1
Certificate	10	39
TOTAL	100	100

Nearly equal majorities of men and women earned the AAS degree. Only one percent of the women selected the diploma award while 39 percent chose the certificate award. On the other hand, 26 percent of the men received diploma awards and only ten percent received certificates. These findings are not unusual since the curricular offerings in the diploma programs are traditionally male-oriented engineering fields, whereas the certificate programs include stenography, clerical studies and other curricula traditionally oriented toward women.

Of the women who were granted AAS degrees, 68 percent were in business and 29 percent were in health services with only one percent each in engineering and public service (Table 13). Proportionally fewer men earning AAS degrees were in business (50%) and many more were in engineering (37%) and public service (8%). Of the men who received diploma awards, 95 percent were in engineering (Table 14). Of the women who were awarded certificates, 75 percent were in business (Table 15).

Race

Of the former occupational-technical students, 12 percent were minorities* (Table 16). Women included a higher proportion of minorities than did men (20%). The racial composition among the graduate and nongraduate groups and across programs and curricular areas was predominantly white (Tables 17, 18, 19).

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*In this report, two racial categories were used: white and minority. Minority included black, American Indians, Orientals, Spanish-surnamed Americans, and others. Seventy percent of the minority groups were blacks.

Because of the percentage of minorities in the total respondent groups, whites would be expected to predominate in all curricular areas. Figure 2 shows this to be true. Proportionally more whites were in public service and engineering (Table 9). Of those enrolled in public service, only 6 percent were from a minority group; all were men who had been enrolled in police science (Table 3). The highest proportions of minority groups were enrolled in communications and media and health services. Most of the minorities enrolled in health services were in the nursing field (26%). However, racial differences across curricula were not great, as shown by the following tabulation:

Distribution of Curricula Within Each Racial Group

	White	Minority
Business	49%	57%
Communications and Media	2	4
Engineering	34	24
Health Services	5	9
Public Service	7	3
Other	3	3
TOTAL	100	100

The primary difference in curricular selections across racial groups was in engineering, which attracted proportionally more whites than minorities. Also, minority students more frequently chose business and health services. Whites more frequently selected public service programs (Table 9).

Minority students were not as persistent in completing their programs as whites. Of the graduate group, 90 percent were white and 10 percent were minorities. Of the nongraduates, 86 percent were white and 14 percent were minorities (Table 16). Viewing the proportions of graduates within both racial groups, 37 percent of the whites compared to 29 percent of the minority subgroup graduated (Table 7). However, differences in proportions of graduates appear to be related to sex as well as race, as noted in the tabulation which follows:

Proportions of Respondents Who Were Graduates, By Race and Sex

	Percent
White women	44
Minority women	37
White men	34
Minority men	22
Overall	36

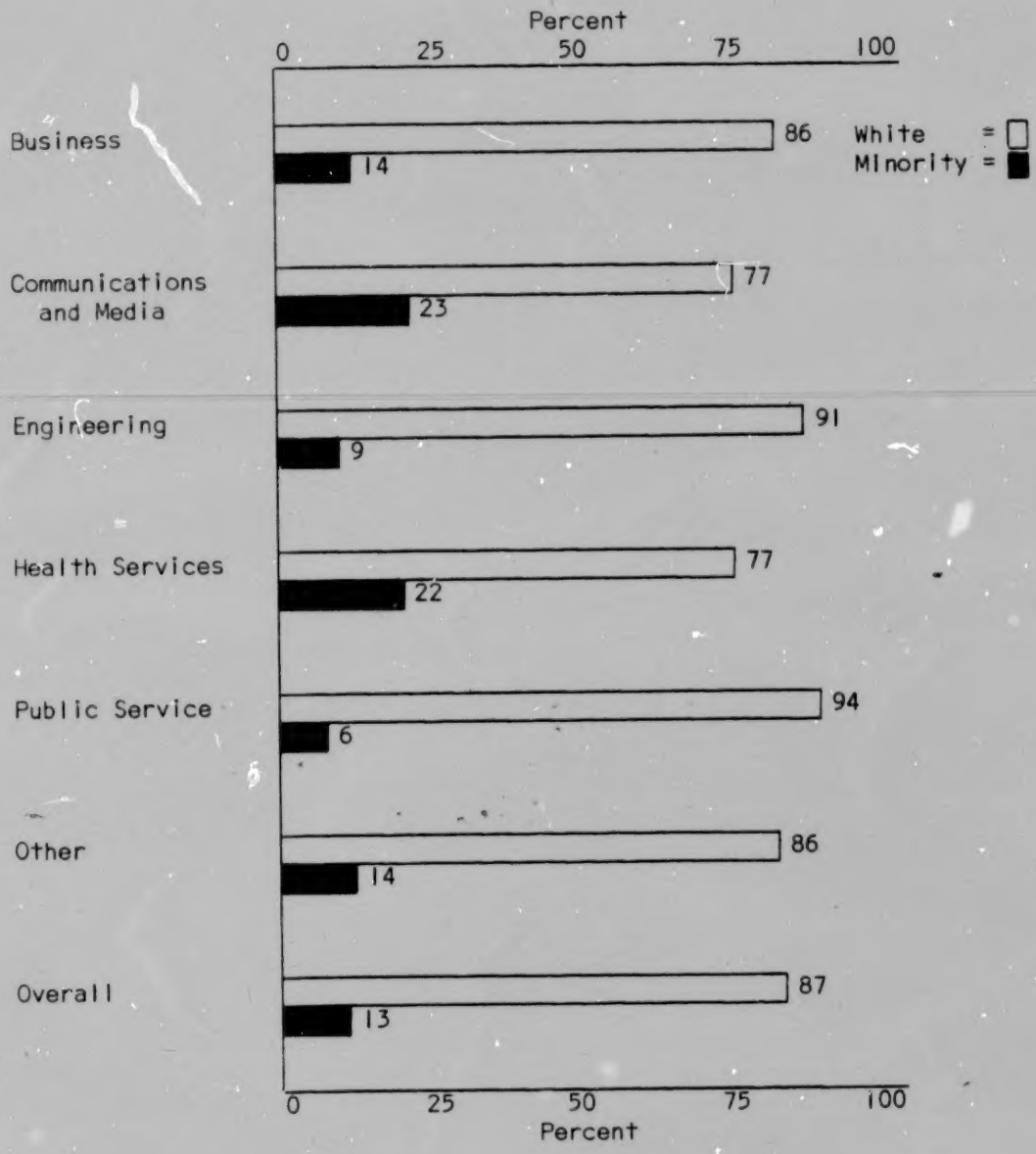


Figure 2. Race Distribution of All Respondents By Curricular Areas

White women graduated proportionally most often and minority men least often. Minority women and white men were similar in their extent of graduation (both approximated the overall figure for all former students).

Whites, because they were overrepresented in total number, represented the majority of the graduates from the AAS, diploma, and certificate programs. Over 90 percent of those receiving the AAS degrees and diplomas and over 80 percent of those receiving certificates were whites (Table 21).

Similar differences remain in types of degrees earned when they were analyzed within racial groups. Of the white graduates, 64 percent earned the AAS degree whereas 51 percent of minority graduates earned the AAS. More whites earned the diploma (18%) than minorities (10%); more minorities earned the certificate (39%) than whites (18%) (Table 22).

Age

The median age of all respondents was 22.8 years at the time of the study (Table 23). A slight age difference was noted between graduates and nongraduates (22.6 and 22.9 years). Certificate holders were the youngest graduate group (21.9 years) while AAS degree holders were the oldest (22.9). Since it normally takes an additional year to complete an AAS degree compared to a certificate, this finding was to be expected. There was no age difference between white and minority respondents. The men were one year older than the women (23.2 and 22.2).

Graduates from health services areas were the oldest group (25.9 years). Age differences for other curricular areas were slight.

Marital Status

At the time of the survey, 57 percent of the former students were married, 40 percent were single, and the remaining three percent reported "Other" (Table 24). The "Other" category included those persons who were divorced, separated, or widowed.

Proportionally, more men than women were married. A greater proportion of the minority than the majority respondents were single (48% and 39%). Proportionally more graduates than nongraduates were single (44% and 38%) (Table 25).

All types of graduates -- AAS, diploma and certificate -- were more likely to be married than single (Table 26). Diploma graduates were most likely to be married whereas AAS graduates were least likely.

Comparison of graduates from the six curricular areas showed that those from the health services programs were most often married (64%), followed by engineering graduates (58%). Higher percentages of graduates in business and communications and media were single (50% and 55%) (Table 26).

Residency

Approximately 98 percent of the respondents were Virginia residents at the time of their enrollment at the community colleges (Table 27). This distribution is true for all sex and racial groups, and for graduates and nongraduates. It is also of interest that a majority of these former students (86% of the graduates and 90% of the nongraduates) have remained and found employment in Virginia (Eyler, et al., 1974, p. 10).

Socioeconomic Background

The socioeconomic background of former occupational-technical students is described in this section, using educational levels of parents and occupations of former students' fathers. Findings for the total sample and subgroups by graduate status, type of graduation award, race and sex were examined and compared.

Parents' Education

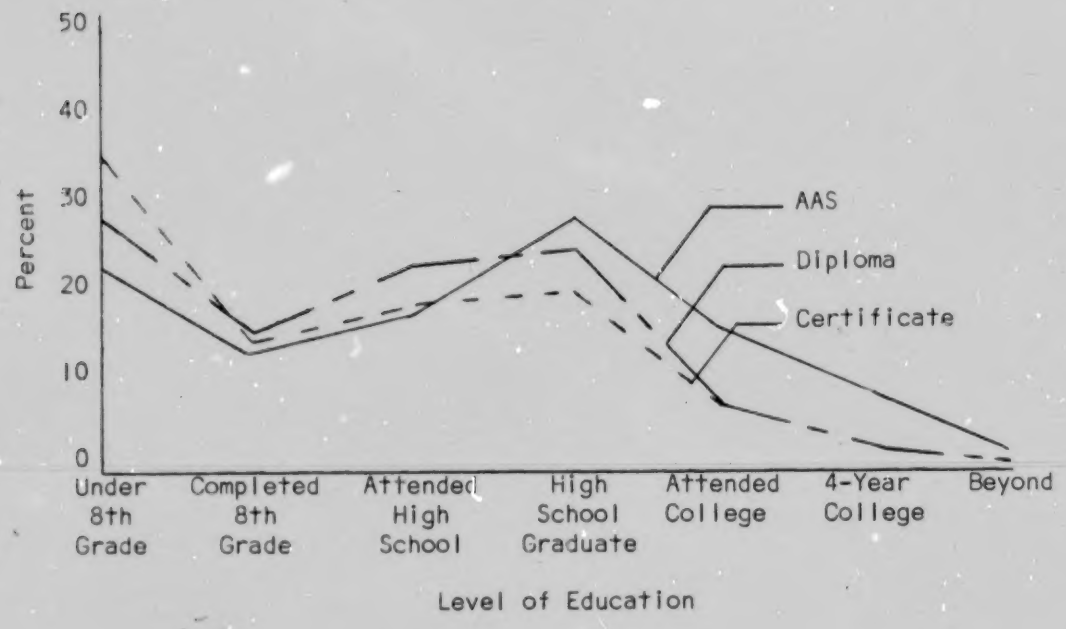
Occupational-technical students at Virginia community colleges came from homes where levels of formal education were relatively low (Table 28). Almost 30 percent of the parents had no formal education above the eighth grade. Nearly 50 percent of the parents had not completed high school. Five percent had completed at least four years of college.

There was little difference between graduates and nongraduates in the level of educational attainment by their parents (Table 28). However, there were some differences among types of graduates (Table 29). Fathers of diploma and certificate graduates were less well educated than fathers of AAS graduates. Whereas 50 percent of the fathers of AAS graduates had not graduated from high school, 63 percent of the fathers of diploma graduates and 67 percent of fathers of certificate graduates had not completed high school. Eleven percent of AAS graduates' fathers had graduated from college, but only three percent of diploma and certificate graduates' fathers had graduated from college. Although more mothers of AAS graduates than certificate and diploma graduates attended some college, there were few differences in mothers' educational attainment across types of awards. Figure 3 compares educational levels of graduates' parents by types of awards. These findings support the idea that the educational level of parents, especially of fathers, has considerable influence on the educational aspirations of their children.

Fathers of graduates in public service curricula had higher levels of education than did fathers in other specified curricula, but this did not hold true for mothers' education (Table 30). Parents of both the graduates and nongraduates had somewhat similar educational levels (Table 28).

Parents of minority respondents were considerably less well educated than were parents of majority respondents. Of majority parents, 45 percent had not completed high school; and of minority parents, 62 percent had not completed high school (Table 31). Figure 4 shows clearly significant

Father's Education of AAS, Diploma and Certificate Graduates



Mother's Education of AAS, Diploma and Certificate Graduates

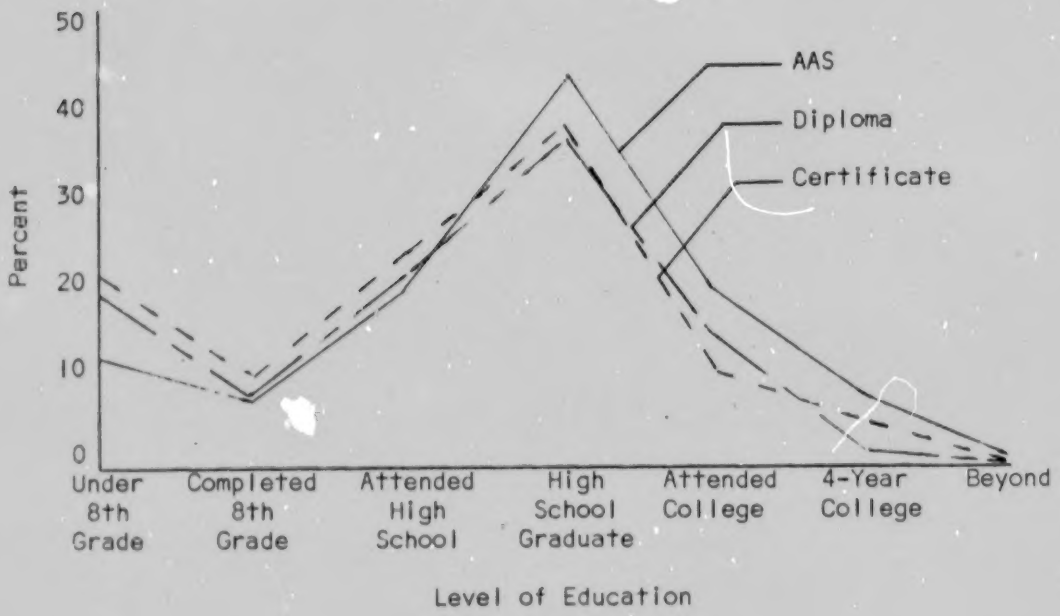
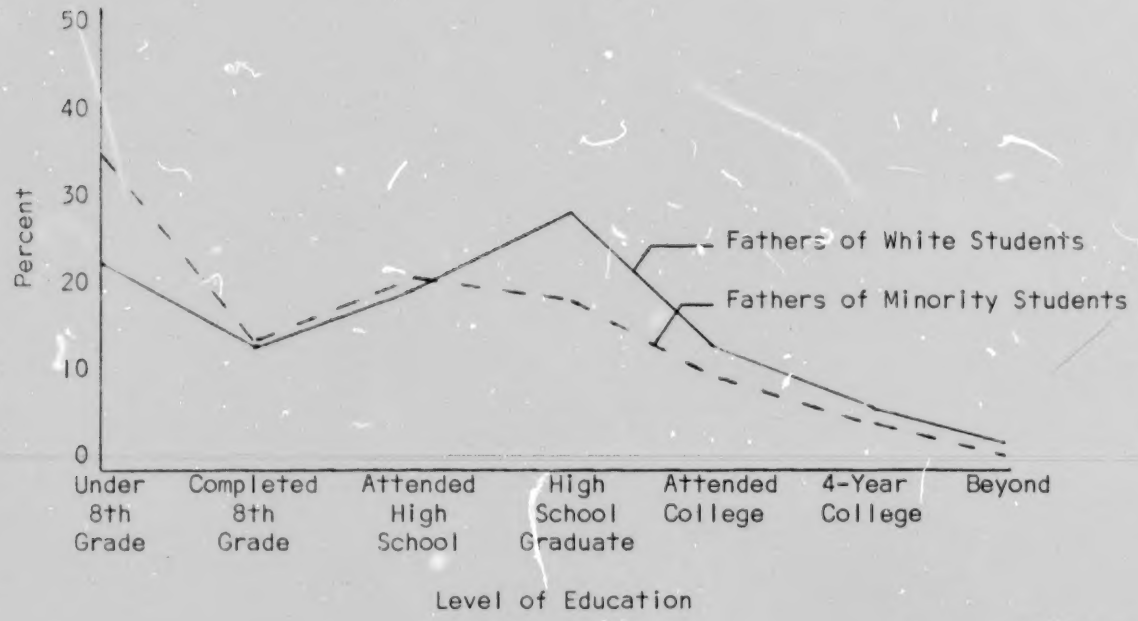


Figure 3. Parents' Educational Level of Graduates By Types of Awards

Father's Educational Level of White and Minority Students



Mother's Educational Level of White and Minority Students

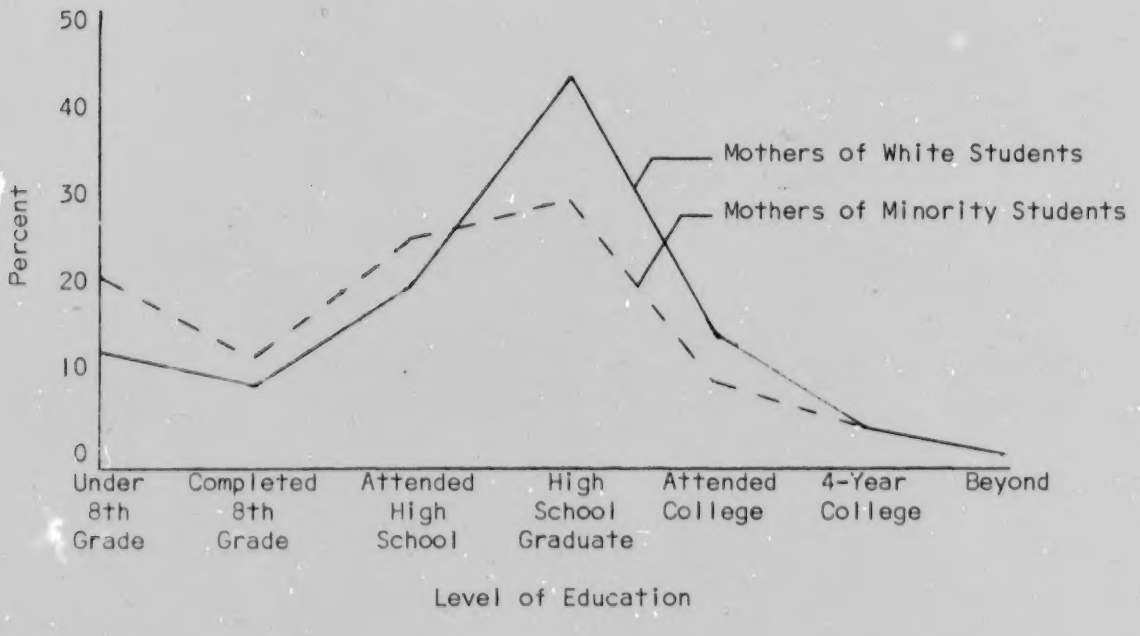


Figure 4. Parents' Educational Level of White and Minority Students

differences in educational attainment between parents of majority and minority groups. The educational attainments of minority students' fathers were concentrated at the lower levels, particularly at the under eighth grade level (33%). Fewer white students' fathers on a proportional basis were at the lower levels and more were at the higher levels, with the largest percentage at high school graduation (27%). The same pattern holds true for mothers' educational attainments.

Father's Occupation

Father's occupation is another index for describing socioeconomic level. Listed below are the nine main job categories used in this study to identify the occupations of respondents' fathers (including a category for unemployed and unknown occupations) and the percentage of fathers who were in each category:

Occupations of Fathers

	All Respondents
Skilled	28%
Proprietor or Owner	14
Semi-Skilled	13
Managerial or Office	11
Professional	10
Unskilled	7
Clerical and Sales	6
Semi-Professional and Technical	5
Service Worker	4
Unemployed	1
Unknown	1
TOTAL	100

Almost 55 percent of the respondents' fathers were engaged in blue-collar[1] occupations, and 44 percent were engaged in white-collar[2] jobs (Table 32).

Figure 5 shows that the fathers of white students were engaged more frequently both in white-collar and skilled occupations, whereas the fathers of minority students were predominantly engaged in unskilled,

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[1]Blue-Collar - Skilled, semi-skilled, unskilled, service worker and half of those appearing in proprietor or owner and semi-professional or technical categories.

[2]White-Collar - Clerical or sales, managerial or office, professional and half of those appearing in proprietor or owner and semi-professional and technical categories.

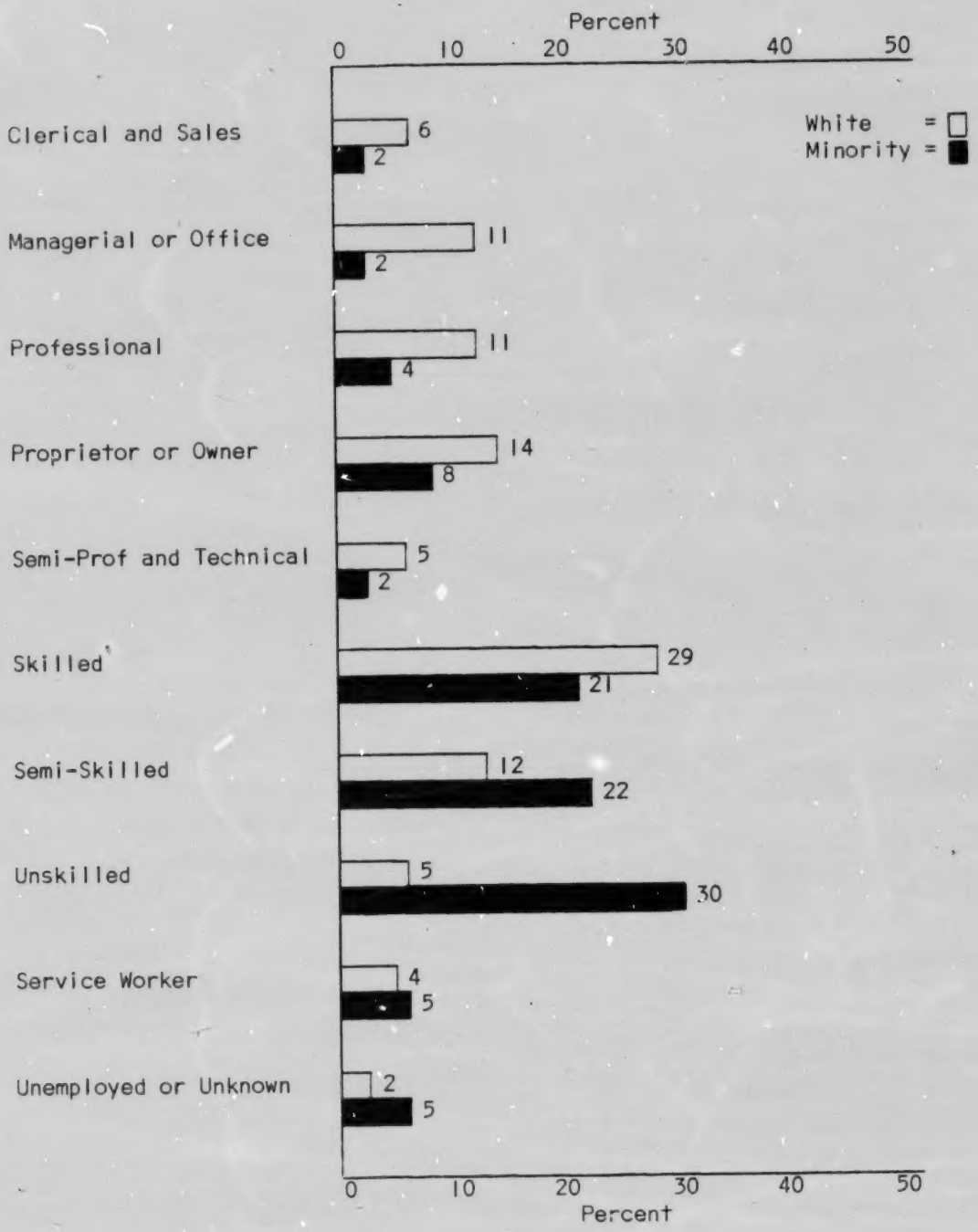

Figure 5. Father's Occupation of All Respondents By Race

semi-skilled and skilled occupations (Table 32). These results are not surprising since fathers of the minority group were shown to have less education than fathers of the majority group.

The fathers of graduates tended slightly more toward managerial/office and professional occupations; fathers of nongraduates tended slightly more towards proprietorship/owner, semi-skilled and unskilled occupations. Overall, however, little difference between the occupations of fathers of graduates and nongraduates was found (Table 33).

Fathers of AAS graduates were engaged proportionally more in managerial and professional roles than fathers of diploma and certificate graduates. Fathers of diploma graduates were engaged proportionally more in proprietorship, skilled and semi-skilled jobs, while fathers of certificate graduates were engaged proportionally more in unskilled occupations (Table 34). Figure 6 illustrates the distribution of father's occupations of graduates by type of award.

The following tabulation compares the percentages of graduates' fathers engaged in blue-collar and white-collar occupations by curricular area.

Father's Occupation of Graduates by Curricular Area

	Blue-Collar		White-Collar	
	N	%	N	%
Business	641	65	347	35
Communications	21	66	11	34
Engineering	540	69	240	31
Health	113	59	78	41
Public Service	34	47	38	53
Other	76	55	62	45

The majority of fathers of graduates in all curricular areas except public service were engaged in blue-collar occupations (Table 35). Fathers of engineering graduates were most likely to be in blue-collar jobs, and the fathers of public service graduates were most likely to be in white-collar jobs.

Academic Achievement

The academic performance of former occupational-technical students was investigated in terms of cumulative grade point average (GPA), total credit hours earned, and number of quarters enrolled at the community college.

Cumulative Grade Point Average

Graduates had a higher grade point average (GPA) than nongraduates (2.76 and 2.21 on a 4.00 grading scale) (Table 36).

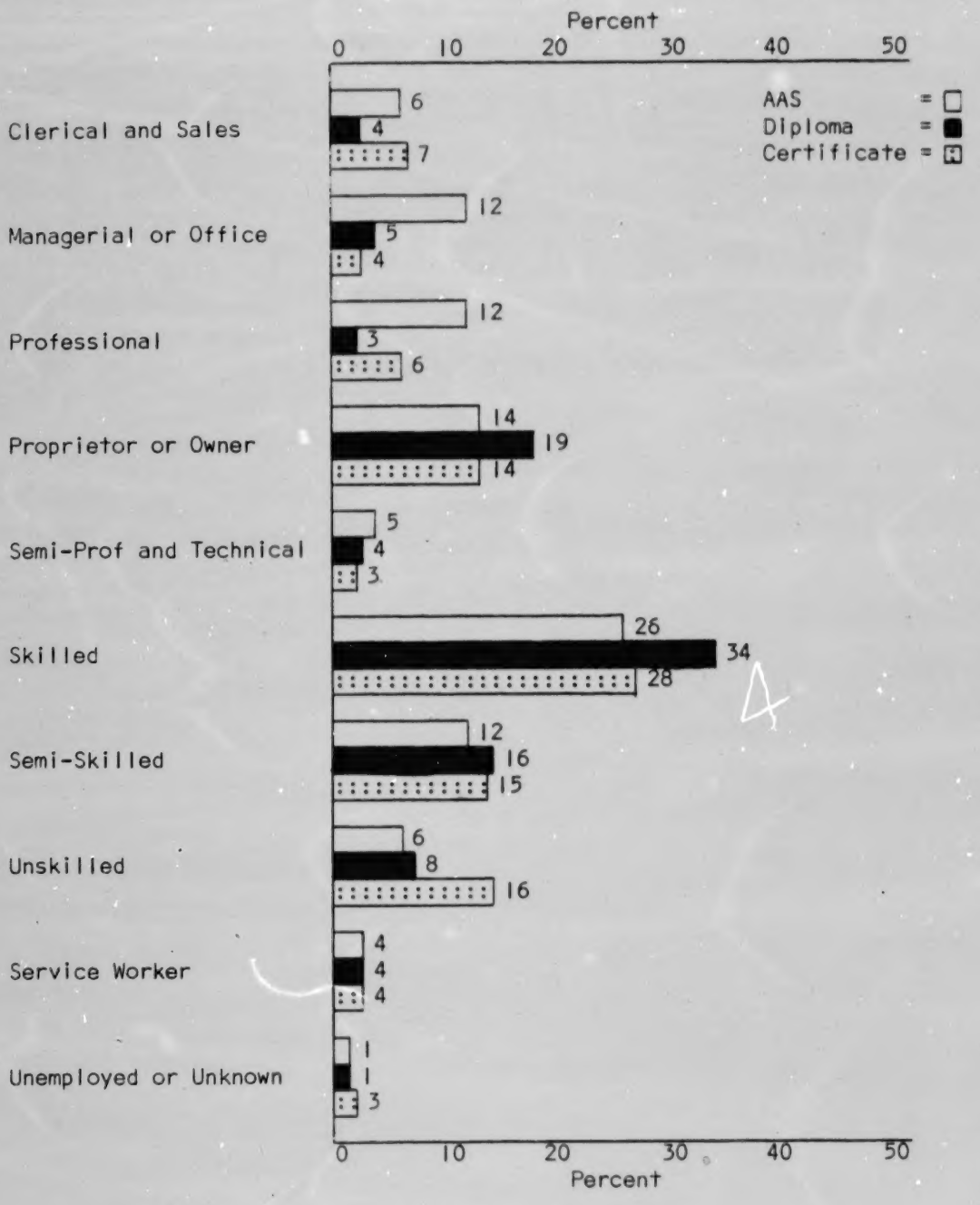

Figure 6. Father's Occupation of Graduate Respondents By Types of Awards

Women, both graduates and nongraduates, achieved a higher GPA than men by 0.12 and 0.24 grade points, respectively. White graduates achieved a 0.16 higher GPA than minority graduates.

Among types of graduates, diploma students achieved the highest GPA (2.86), followed by AAS students (2.75) and then certificate students (2.72).

Among curricular areas, students in health services achieved the highest GPA (2.91) and students in the business area, the lowest (2.69) (Table 37).

Number of Quarters in Residence

Minimum credit hours required for an associate degree vary from program to program and curriculum to curriculum. Certificate programs can normally be completed within a year or less. Diploma programs generally require six or seven quarters, or approximately two years excluding summers. AAS programs can be completed in two years on a full-time basis, excluding summer sessions. Findings indicate that students generally do not complete their programs within the specified time periods (Table 38). The majority of certificate graduates from 1966-67 to 1970-71 took from four to nine quarters, with great variation from year to year. The majority of diploma graduates finished their degrees in seven to twelve quarters. Between 1966-67 and 1968-69, about 80 percent of the AAS graduates took from seven to nine quarters to complete the degree, but from 1969-1970 to 1970-71, only about 60 percent completed the degree in seven to nine quarters (more than two to three years). During the latter two years, 30 percent required more than three years to complefe the degree. It is not known whether the extended completion periods are due more to part-time status of students or to a pattern of dropping out and then returning to the community college.

Credit Hours Earned

The minimum number of credit hours required for certificates and diplomas varies. AAS degrees require students to complete a minimum of 97 hours. The number of credit hours earned by the AAS graduates from 1966-67 through 1970-71 averaged from 97 to 102, figures which correspond closely to the minimal requirement for the degree (Table 39). Diploma graduates earned slightly more credit hours than AAS graduates, ranging from 101-106. Certificate graduates earned an average of from 50 to 58 credit hours.

SUMMARY AND CONCLUSIONS

This section contains a summary of the study, including the procedures and results. In addition, several implications of this research are presented, followed by recommendations for further research.

A Summary of Procedures

Two instruments were designed to gather data on former occupational-technical students at 13 Virginia community colleges. A college data form was used to collect information on students from college files. The second instrument was a questionnaire completed by the former students giving information on postcollege activities, current employment and evaluation of college experiences.

Students enrolled in occupational-technical curricula from fall 1966 through fall 1969 were contacted by mail. Both graduates and nongraduates were asked to participate. Four contacts were made to increase the return rate. In all, 61 percent of the former students returned usable questionnaires. Nonresponse bias was investigated and several areas of significant difference between nonrespondents and respondents were found.

A Summary of Results

This report described former occupational-technical students in terms of their curricula, demographic characteristics, socioeconomic backgrounds, and past academic achievements.

Curricula of Former Occupational-Technical Students

Former students were enrolled in 99 different occupational-technical curricula. Approximately half of the 6,387 respondents were in business related programs. Nearly one-third were in engineering. The remaining 12 percent were in public service, health services, communications and media, and other curricula.

One-third of the respondents were graduates: of these, 63 percent had earned the AAS degree; 17 percent, the diploma; and 20 percent, the certificate. Two-thirds of the respondents were nongraduates. Public service had the highest percentage of nongraduates (81%) and health services, the lowest (42%) (Table 5).

Demographic Characteristics

Men comprised 69 percent of the respondents in general (Table 6), but minority representation involved nearly equal numbers of men and women.

Although men comprised 64 percent of the total graduate group, women on a proportional basis were more likely to graduate.

Men and women showed distinct curricular preferences. Of the total former student group, men predominated in all curricula except health services (Table II). More men were in engineering than in any other curricula. Business was chosen next most frequently. Health services was chosen least frequently by the men. On the other hand, women overwhelmingly selected business curricula or health services. Women chose public service the least.

Male graduates were more likely to choose engineering than nongraduate males, who selected business most often. Graduate and nongraduate women selected business most frequently (Tables 10 and 11).

Nearly equal percentages of men and women on a proportional basis chose the AAS degree. However, other degree choices varied greatly by sex. Whereas only one percent of the graduate women selected the diploma, 26 percent of the men did. Only ten percent of the men were granted certificates compared to 39 percent of the women.

Whites comprised 88 percent of the former students. Minority women were represented twice as much as minority men. Although whites predominated in all curricula areas, minorities were represented more heavily in communications and media (23%) and health services (22%).

When one examines curricular choices within each racial group, differences become narrower. Fifty percent of whites chose business, and 56 percent of the minorities chose business. The largest difference was in engineering where there was 10 percent more whites than minorities.

Of the total graduate group, 90 percent were white and 10 percent were minorities. Of the nongraduates, 14 percent were minorities. It appears that minorities may be less persistent in completing their programs. White women were the most likely to graduate; minority men were the least likely. Whites chose the AAS degree and the diploma more frequently than did minority group members. The certificate was chosen by minorities twice as much as by whites. Proportionally, more whites graduated than minorities. The highest percentage of minority graduates chose the certificate award.

The median age of former students was 22.8 years. Graduates were slightly older than nongraduates. Certificate holders were the youngest group. Men were one year older than women. No age difference between white and minority students was found. Health services graduates were the oldest, but only slight age differences were noted among students in other curricula.

A majority of respondents were married (57%). Proportionally more men, more graduates, and more whites were married. Over 98 percent of the former students were Virginia residents at the time of their enrollment. Nearly all of these remained in Virginia.

Socioeconomic Background

Nearly 50 percent of former students' parents had not completed high school. Almost 30 percent had no formal education above the eighth grade. Fathers generally were less well educated than mothers, although more fathers had attained four year college degrees or higher. AAS graduates' fathers were better educated than the fathers of diploma or certificate holders. Parents of graduates and nongraduates showed few differences in educational attainment. Minority students' parents, however, were considerably less well educated than the parents of majority students.

The largest proportion of respondents' fathers were in blue-collar occupations (55%). Minority fathers were more often in blue-collar occupations than were majority fathers. Fathers of AAS graduates were more likely to be in white-collar jobs than were fathers of diploma and certificate graduates.

Academic Achievement

Graduates had a higher cumulative GPA than nongraduates. Women achieved higher averages than men. White graduates had slightly higher GPAs than minority graduates. Minority men graduates achieved a higher GPA than minority women graduates; white graduate women achieved a higher GPA than white graduate men. Ranges of GPAs among types of graduates were narrow with diploma graduates achieving the highest and certificate graduates, the lowest. Health services graduates had the highest GPA; business graduates, the lowest.

Former students generally took more time to complete their degrees than the minimum number of quarters required. The majority of certificate graduates took from four to nine quarters; diploma graduates, seven to twelve quarters; and AAS graduates, from seven to nine quarters. It was found that students generally graduate with approximately the minimal number of credit hours needed for the degree or award.

Discussion

This report has presented a profile of former occupational-technical students at Virginia's community colleges. It has particular value as baseline information for future research and for understanding and interpreting the two companion reports on this project (Eyler et al., 1974; Trufant et al., 1974).

Although there are multiple research topics suggested in the narrative of the report, several seem especially worth noting here:

- The question of the relationship between level of graduation award and family socioeconomic status should be investigated in order to measure what impact the community college has on income, education, occupation, and other characteristics which measure social mobility. There are indications in the findings of this report that patterns of graduation awards are related to socioeconomic status. Additional study should extend beyond these findings and should be related to the role of the community college.

- Are there common characteristics among nongraduates which help to explain why students choose not to complete their programs or stop short of achieving their enrollment goals? Further investigation should include personal and occupational effects of their decisions not to graduate or complete their goals.

- How are student attrition and retention related to characteristics of curricular areas? For example, what factors, such as degree of academic difficulty, amount of required general education, salable skill development, or career potential in each curricular area are related to student persistence?

- How do the characteristics of occupational-technical students compare with those of the population in the community college regions from which they come? What can the community college do to increase attendance among groups which are underrepresented?

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Eyler, D. R., Kelly, S. J., & Snyder, F. A. Postcollege Activities of Former Occupational-Technical Students. Research Report #3. Richmond, Virginia: Division of Research and Planning, Virginia Department of Community Colleges, 1974.

Trufant, J. E., Kelly, S. J., & Pullen, P. A. Perceptions of Former Occupational-Technical Students Toward Community College Experience and Postcollege Activities. Research Report #4. Richmond, Virginia: Virginia Department of Community Colleges, 1974.

APPENDICES

APPENDIX A

TABLES

TABLE I

DISTRIBUTION OF GRADUATE AND NONGRADUATE RESPONDENTS BY COLLEGE

Community College	OVERALL			GRADUATES			NONGRADUATES		
	Initial	Usable		Initial	Usable		Initial	Usable	
	N	N	%[a]	N	N	%[a]	N	N	%[a]
Blue Ridge	985	556	63	294	221	79	691	335	55
Central Virginia	476	294	67	177	132	78	299	162	60
Dabney S. Lancaster	270	174	66	123	93	77	147	81	56
Danville	989	601	65	533	378	76	456	223	53
John Tyler	1,338	655	56	301	204	74	1,037	451	50
New River	318	208	69	267	178	69	51	30	65
Northern Virginia	2,568	1,307	60	827	490	69	1,741	817	56
Southwest Virginia	442	236	55	150	94	64	292	142	51
Thomas Nelson	1,319	811	65	92	68	80	1,227	743	64
Tidewater	1,011	486	55	52	31	70	959	455	54
Virginia Highland	198	131	68	100	72	73	98	59	63
Virginia Western	1,203	579	55	297	182	68	906	397	50
Wytheville	506	349	71	209	164	80	297	185	64
VCCS TOTAL	11,623	6,387	61	3,422	2,307	73	8,201	4,080	56

[a]Based on deliverable questionnaires

TABLE 2

COMPARISONS OF CHARACTERISTICS BETWEEN MAIL RESPONDENTS AND NONRESPONDENTS (TELEPHONE INTERVIEWEES)

VARIABLES	TELEPHONE		MAIL RESPONDENTS	
	N	%	N	%
Sex				
Male	104		4,438	
Female	35		1,949	
$\chi^2 = 1.59$; $p > .05$				
Age				
Median Age (in years)	22.9		22.8	
Father's Education				
Under 8 Years	29		1,432	
Completed 8th Grade	10		732	
Attended High School	13		1,111	
High School Graduate	45		1,568	
Attended College	17		737	
4-Yr. College Graduate	14		382	
Master's or Higher	2		163	
$\chi^2 = 15.57$; $p < .05$				
Mother's Education				
Under 8 Years	14		793	
Completed 8th Grade	13		536	
Attended High School	15		1,177	
High School Graduate	63		2,490	
Attended College	22		751	
4-Yr. College Graduate	4		261	
Master's or Higher	2		54	
$\chi^2 = 9.36$; $p > .05$				
Present Activity				
Full-Time Employment	99	75	4,438	75
Part-Time Employment	17	13	327	6
College Full-Time	10	8	488	8
Military Service	2	2	330	6
Housewife	3	2	304	5
TOTAL	131	100	5,887	100
Curriculum Congruence With First Job				
Very Much (3)	43		1,399	
Somewhat (2)	22		694	
Very Little (1)	26		1,375	
$t = 1.896$; $p > .05$	Mean 2.19		2.01	
Curriculum Congruence With Present Job				
Very Much (3)	36		1,910	
Somewhat (2)	21		943	
Very Little (1)	27		1,121	
$t = .973$; $p > .05$	Mean 2.11		2.20	

TABLE 2 (Continued)

VARIABLES	TELEPHONE N	TELEPHONE %	MAIL RESPONDENTS N	MAIL RESPONDENTS %
Initial Salary				
Up to $2,999	3		475	
$3,000 - 3,999	13		494	
$4,000 - 4,999	10		637	
$5,000 - 5,999	9		626	
$6,000 - 6,999	9		525	
$7,000 - 7,999	15		444	
$8,000 - 8,999	12		238	
$9,000 - 9,999	2		111	
$10,000 - 10,999	6		91	
$11,000 and Over	3		96	
$\chi^2 = 28.03$; $p < .05$				
Present Salary				
Up to $2,999	2		70	
$3,000 - 3,999	4		244	
$4,000 - 4,999	8		479	
$5,000 - 5,999	11		553	
$6,000 - 6,999	10		525	
$7,000 - 7,999	9		582	
$8,000 - 8,999	15		535	
$9,000 - 9,999	6		316	
$10,000 - 10,999	7		247	
$11,000 and Over	6		378	
$\chi^2 = 4.15$; $p > .05$				
Ratings of the Quality of College Preparation				
Technical Knowledge				
Superior	20		915	
Good	100		3,667	
Fair/Poor	17		1,387	
$\chi^2 = 9.78$; $p < .05$				
General Education				
Superior	14		692	
Good	96		3,993	
Fair/Poor	18		1,115	
$\chi^2 = 2.54$; $p > .05$				
Opinions About College Experience				
Shop and Laboratory Instruction				
Superior	20		922	
Good	72		3,192	
Fair/Poor	24		1,502	
$\chi^2 = 2.16$; $p > .05$				
Academic Instruction				
Superior	19		812	
Good	104		3,946	
Fair/Poor	14		1,036	
$\chi^2 = 5.34$; $p > .05$				

TABLE 2 (Continued)

VARIABLES	TELEPHONE N	TELEPHONE %	MAIL RESPONDENTS N	MAIL RESPONDENTS %
Counseling				
Superior	28		767	
Good	70		2,287	
Fair/Poor	26		2,542	
$\chi^2 = 30.19$; $p < .05$				
Overall				
Superior	18		467	
Good	111		3,825	
Fair/Poor	7		1,381	
$\chi^2 = 28.41$; $p < .05$				
Job Satisfaction				
Overall				
Superior	27		524	
Good	55		2,490	
Fair/Poor	9		1,180	
$\chi^2 = 31.14$; $p < .05$				

TABLE 3

DISTRIBUTION OF ALL RESPONDENTS BY CURRICULUM OR CURRICULAR GROUP, SEX AND RACE

	All Respondents	SEX				RACE			
		Men		Women		White		Minority	
	N	N	%	N	%	N	%	N	%
Business									
Accounting Tech./Accounting	371	227	61	144	39	329	89	42	11
Data Processing(Prog./Unit Rec.)	660	472	72	188	28	562	85	98	15
DP(Mach. & Comp. Opr./Keypunch)	97	31	32	66	68	47	48	50	52
Business Management	1,104	954	86	150	14	1,020	92	84	8
Hotel, Restaurant & Inst. Mgt.	20	12	60	8	40	17	85	3	15
Merchandising Management	67	48	72	19	28	63	94	4	6
Real Estate Management	2	2	100	-	-	2	100	-	-
Stenography/Clerical Studies	189	4	2	185	98	151	80	38	20
Secretarial Science	705	13	2	692	98	584	83	121	17
Sub-Total	3,215	1,763	55	1,452	45	2,775	86	440	14
Communications/Media									
Commercial Art/Printing	146	89	61	57	39	112	77	34	23
Sub-Total	146	89	61	57	39	112	77	34	23
Engineering									
Architectural Technology	109	107	98	2	2	100	92	9	8
Aeronautical Technology	2	2	100	-	-	2	100	-	-
Automotive Technology	46	46	100	-	-	45	98	1	2
Auto Trades	121	120	99	1	1	107	88	14	12
Chemical Technology	4	3	75	1	25	4	100	-	-
Civil Engineering Technology	67	67	100	-	-	65	97	2	3
Drafting and Des. Technology	380	376	99	4	1	332	87	48	13
Draft Trades (Mech., Arch., Struct.)	198	194	98	4	2	185	93	13	7
Industrial Mgt./Tech.	53	51	96	2	4	49	93	4	7
Electronic Technology	442	430	97	12	3	402	91	40	9
Electronic Trades	217	212	98	5	2	200	92	17	8
Machine Technology/Trades	156	156	100	-	-	139	89	17	11
Marine Technology	18	17	94	1	6	14	78	4	22
Mechanical Engr. Technology	160	158	99	2	1	151	94	9	6
Building Trades (Air Cond., Refr., Masonry, Plbg., Sh. Met., Weldg. Carpentry)	79	79	100	-	-	71	90	8	10
Textile Management	32	30	94	2	6	30	94	2	6
Cosmetology*	25	2	8	23	92	25	100	-	-
Sub-Total	2,109	2,050	97	59	3	1,921	91	188	9
Health Services									
Dental Lab. Technology	22	-	-	22	100	21	96	1	4
Medical Lab. Technology	1	-	-	1	100	1	100	-	-
Medical Records Technology	3	1	33	2	67	3	100	-	-
Mental Health Technology	2	-	-	2	100	2	100	-	-
Mortuary Science	9	8	89	1	11	6	67	3	33
Nursing	245	13	5	232	95	182	74	63	26
Practical Nursing	43	1	2	42	98	37	86	6	14
Radiological Technology	8	2	25	6	75	7	88	1	12
Sub-Total	333	25	8	308	92	259	78	74	22

TABLE 3 (Continued)

	All Respondents	SEX				RACE			
		Men		Women		White		Minority	
	N	N	%	N	%	N	%	N	%
Public Service									
Community & Social Service Tech.	2	-	-	2	100	2	100	-	-
Fire Science	63	63	100	-	-	63	100	-	-
Recreation and Parks Leadership	1	1	100	-	-	1	100	-	-
Police Science	315	301	96	14	4	291	92	24	8
Environmental Technology	13	12	92	1	8	13	100	-	-
Sub-Total	394	377	96	17	4	370	94	24	6
Other									
Agricultural Bus. Technology	46	42	91	4	9	45	98	1	2
Forest Technology	14	14	100	-	-	14	100	-	-
Teacher Aide (Lib./Audio Visual)	25	7	28	18	72	10	40	15	60
Developmental/Unclassified)	105	71	68	34	32	95	90	10	10
Sub-Total	190	134	71	56	29	164	86	26	14
TOTAL	6,387	4,438	69	1,949	31	5,601	88	786	12

*Cosmetology students were inadvertently included in the Engineering curriculum. They are of insufficient numbers to affect the findings in this report.

TABLE 4

THE SEX AND RACIAL DISTRIBUTION
OF GRADUATE RESPONDENTS ACROSS CURRICULAR GROUPS

	All Respondents		SEX				RACE			
			Men		Women		White		Minority	
	N	%	N	%	N	%	N	%	N	%
Business	1,036	47	474	46	562	54	909	88	127	12
Communications/Media	34	2	24	71	10	29	25	74	9	26
Engineering	823	37	801	97	22	3	783	95	40	5
Health Services	199	9	11	6	188	94	166	83	33	17
Public Service	74	3	70	95	4	5	72	97	2	3
Other	36	2	25	69	11	31	29	81	7	19
TOTAL	2,202	100	1,405	64	797	36	1,984	90	218	10

TABLE 5

THE SEX AND RACIAL DISTRIBUTION
OF NONGRADUATES ACROSS CURRICULAR GROUPS

	All Respondents		SEX				RACE			
			Men		Women		White		Minority	
	N	%	N	%	N	%	N	%	N	%
Business	2,179	53	1,289	59	890	41	1,866	86	313	14
Communications/Media	112	3	65	58	47	42	87	78	25	22
Engineering	1,286	32	1,249	97	37	3	1,138	88	148	12
Health Services	134	3	14	10	120	90	93	69	41	31
Public Service	320	8	307	96	13	4	298	93	22	7
Other	49	1	38	78	11	22	40	82	9	2
TOTAL	4,080	100	2,962	73	1,118	27	3,522	86	558	14

TABLE 6

SEX DISTRIBUTION FOR ALL RESPONDENTS, GRADUATES AND NONGRADUATES BY RACE

	White		Minority		Total	
	N	%	N	%	N	%
ALL RESPONDENTS						
Men	4,036	72	402	51	4,438	69
Women	1,565	28	384	49	1,949	31
TOTAL	5,601	100	786	100	6,387	100
ALL GRADUATES						
Men	1,389	67	87	56	1,476	64
Women	690	33	141	44	831	36
TOTAL	2,079	100	228	100	2,307	100
ALL NONGRADUATES						
Men	2,647	75	315	56	2,962	73
Women	875	25	243	44	1,118	27
TOTAL	3,522	100	558	100	4,080	100

TABLE 7

RACE DISTRIBUTION OF GRADUATES
AND NONGRADUATES BY SEX

	WHITES						MINORITY							
	Men		Women		Total		Men		Women		Total		Overall Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Graduates	1,389	34	690	44	2,079	37	87	22	141	37	228	29	2,307	36
Nongraduates	2,647	66	875	56	3,522	63	315	78	243	63	558	71	4,080	64
TOTAL	4,036	100	1,565	100	5,601	100	402	100	384	100	786	100	6,387	100

TABLE 8

SEX DISTRIBUTION FOR ALL RESPONDENTS,
GRADUATES AND NONGRADUATES BY CURRICULAR AREAS

ALL RESPONDENTS

	Total		Business		Communications		Engineering		Health		Public Service		Other	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Men	4,438	69	1,763	55	89	61	2,050	97	25	8	377	96	134	70
Women	1,949	31	1,452	45	57	39	59	3	308	92	17	4	56	30
TOTAL	6,387	100	3,215	100	146	100	2,109	100	333	100	394	100	190	100

ALL GRADUATES

Men	1,476	64	474	46	24	71	801	97	11	6	70	95	96	68
Women	831	36	562	54	10	29	22	3	188	94	4	5	45	32
TOTAL	2,307	100	1,036	100	34	100	823	100	199	100	74	100	141	100

ALL NONGRADUATES

Men	2,962	73	1,289	59	65	58	1,249	97	14	10	307	96	38	78
Women	1,118	27	890	41	47	42	37	3	120	90	13	4	11	22
TOTAL	4,080	100	2,179	100	112	100	1,286	100	134	100	320	100	49	100

TABLE 9

THE SEX AND RACIAL DISTRIBUTION
OF RESPONDENTS BY CURRICULAR GROUPS

	All Respondents		SEX				RACE			
			Men		Women		White		Minority	
	N	%	N	%	N	%	N	%	N	%
Business	3,215	51	1,763	40	1,452	74	2,775	49	440	57
Communications/Media	146	2	89	2	57	3	112	2	34	4
Engineering	2,109	33	2,050	46	59	3	1,921	34	188	24
Health Services	333	5	25	1	308	16	259	5	74	9
Public Service	394	6	377	8	17	1	370	7	24	3
Other	190	3	134	3	56	3	164	3	26	3
TOTAL	6,387	100	4,438	100	1,949	100	5,601	100	786	100

TABLE 10

THE SEX AND RACIAL DISTRIBUTION
OF GRADUATE RESPONDENTS BY CURRICULAR GROUPS

	All Respondents		SEX				RACE			
			Men		Women		White		Minority	
	N	%	N	%	N	%	N	%	N	%
Business	1,036	47	474	34	562	70	909	47	127	59
Communications/Media	34	2	24	2	10	1	25	1	9	4
Engineering	823	37	801	56	22	3	783	39	40	18
Health Services	199	9	11	1	188	24	166	8	33	15
Public Service	74	3	70	5	4	1	72	4	2	1
Other	36	2	25	2	11	1	29	1	7	3
TOTAL	2,202	100	1,405	100	797	100	1,984	100	218	100

TABLE 11

THE SEX AND RACIAL DISTRIBUTION
OF NONGRADUATES BY CURRICULAR GROUPS

	All Respondents		SEX				RACE			
			Men		Women		White		Minority	
	N	%	N	%	N	%	N	%	N	%
Business	2,179	53	1,289	45	890	80	1,866	54	313	56
Communications/Media	112	3	65	2	47	4	87	2	25	4
Engineering	1,286	32	1,249	42	37	3	1,138	32	148	27
Health Services	134	3	14	-	120	11	93	3	41	7
Public Service	320	8	307	10	13	1	298	8	22	4
Other	49	1	38	1	11	1	40	1	9	2
TOTAL	4,080	100	2,962	100	1,118	100	3,522	100	558	100

TABLE 12

SEX DISTRIBUTION OF GRADUATE
RESPONDENTS BY TYPES OF AWARDS

	Total		AAS		Diploma		Certificate	
	N	%	N	%	N	%	N	%
Men	1,465	64	939	65	385	98	141	30
Women	830	36	496	35	9	2	325	70
TOTAL	2,295	100	1,435	100	394	100	466	100

TABLE 13

THE SEX AND RACIAL DISTRIBUTION
OF AAS GRADUATES BY CURRICULAR GROUPS

	All Respondents		SEX				RACE			
			Men		Women		White		Minority	
	N	%	N	%	N	%	N	%	N	%
Business	771	57	445	50	326	68	706	56	65	59
Communications/Media	18	1	13	1	5	1	15	1	3	3
Engineering	334	24	328	37	6	1	322	26	12	11
Health Services	146	11	10	1	136	29	119	9	27	25
Public Service	72	5	68	8	4	1	70	6	2	2
Other	25	2	25	3	-	-	25	2	-	-
TOTAL	1,366	100	889	100	477	100	1,257	100	109	100

TABLE 14

THE SEX AND RACIAL DISTRIBUTION
OF DIPLOMA GRADUATES BY CURRICULAR GROUPS

	All Respondents		SEX				RACE			
			Men		Women		White		Minority	
	N	%	N	%	N	%	N	%	N	%
Business	11	3	7	2	4	45	10	3	1	4
Communications/Media	14	4	11	3	3	33	9	2	5	22
Engineering	359	93	358	95	1	11	342	95	17	74
Health Services	1	-	-	-	1	11	1	-	-	-
TOTAL	385	100	376	100	9	100	362	100	23	100

TABLE 15

THE SEX AND RACIAL DISTRIBUTION
OF CERTIFICATE GRADUATES BY CURRICULAR GROUPS

	All Respondents		SEX				RACE			
			Men		Women		White		Minority	
	N	%	N	%	N	%	N	%	N	%
Business	254	57	22	16	232	74	193	52	61	71
Communications/Media	2	-	-	-	2	1	1	-	1	1
Engineering	130	29	115	82	15	5	119	33	11	13
Health Services	52	12	1	1	51	16	46	13	6	7
Public Service	2	-	2	1	-	-	2	1	-	-
Other	11	2	-	-	11	4	4	1	7	8
TOTAL	451	100	140	100	311	100	365	100	86	100

TABLE 16

RACIAL DISTRIBUTION OF GRADUATE AND NONGRADUATE RESPONDENTS BY SEX

	White		Minority		Total	
	N	%	N	%	N	%
ALL RESPONDENTS						
Men	4,036	91	402	9	4,438	100
Women	1,565	80	384	20	1,949	100
TOTAL	5,601	88	786	12	6,387	100
ALL GRADUATES						
Men	1,389	94	87	6	1,476	100
Women	690	83	141	17	831	100
TOTAL	2,079	90	228	10	2,307	100
ALL NONGRADUATES						
Men	2,647	89	315	11	2,962	100
Women	875	78	243	22	1,118	100
TOTAL	3,522	86	558	14	4,080	100

TABLE 17

THE SEX AND RACIAL DISTRIBUTION
OF AAS DEGREE GRADUATES ACROSS CURRICULAR GROUPS

	All Respondents		SEX				RACE			
			Men		Women		White		Minority	
	N	%	N	%	N	%	N	%	N	%
Business	771	57	445	58	326	42	706	92	65	8
Communications/Media	18	1	13	72	5	28	15	83	3	17
Engineering	334	24	328	98	6	2	322	96	12	4
Health Services	146	11	10	7	136	93	119	82	27	18
Public Service	72	5	68	94	4	6	70	97	2	3
Other	25	2	25	100	-	-	25	100	-	-
TOTAL	1,366	100	889	65	477	35	1,257	92	109	8

TABLE 18

THE SEX AND RACIAL DISTRIBUTION
OF DIPLOMA GRADUATES ACROSS CURRICULAR GROUPS

	All Respondents	SEX				RACE			
		Men		Women		White		Minority	
	N	N	%	N	%	N	%	N	%
Business	11	7	64	4	36	10	91	1	9
Communications/Media	14	11	79	3	21	9	63	5	36
Engineering	359	358	99	1	1	342	95	17	5
Health Services	1	-	-	1	100	1	100	-	-
TOTAL	385	376	98	9	2	362	94	23	6

TABLE 19

THE SEX AND RACIAL DISTRIBUTION
OF CERTIFICATE GRADUATES ACROSS CURRICULAR GROUPS

	All Respondents	SEX				RACE			
		Men		Women		White		Minority	
	N	N	%	N	%	N	%	N	%
Business	254	22	9	232	91	193	76	61	24
Communications/Media	2	-	-	2	100	1	50	1	50
Engineering	130	115	88	15	12	119	92	11	8
Health Services	52	1	2	51	98	46	88	6	12
Public Service	2	2	100	-	-	2	100	-	-
Other	11	-	-	11	100	4	36	7	64
TOTAL	451	140	31	311	69	365	81	86	19

TABLE 20

RACIAL DISTRIBUTION FOR ALL RESPONDENTS,
GRADUATES, AND NONGRADUATES BY CURRICULAR AREAS

	Total		Business		Communications		Engineering		Health		Public Service		Other	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
ALL RESPONDENTS														
White	5,601	88	2,775	86	112	77	1,921	91	259	78	370	94	164	86
Minority	786	12	440	14	34	23	188	9	74	22	24	6	26	14
TOTAL	6,387	100	3,215	100	146	100	2,109	100	333	100	394	100	190	100
ALL GRADUATES														
White	2,079	90	909	88	25	73	783	95	166	83	72	97	124	88
Minority	228	10	127	12	9	27	40	5	33	17	2	3	17	12
TOTAL	2,307	100	1,036	100	34	100	823	100	199	100	74	100	141	100
ALL NONGRADUATES														
White	3,522	86	1,866	86	87	78	1,138	88	93	69	298	93	40	82
Minority	558	14	313	14	25	22	148	12	41	31	22	7	9	18
TOTAL	4,080	100	2,179	100	112	100	1,286	100	134	100	320	100	49	100

TABLE 21

RACIAL DISTRIBUTION OF GRADUATE RESPONDENTS BY TYPES OF AWARDS

	Total		AAS		Diploma		Certificate	
	N	%	N	%	N	%	N	%
White	2,067	90	1,319	92	371	94	377	81
Minority	228	10	116	8	23	6	89	19
TOTAL	2,295	100	1,435	100	394	100	466	100

TABLE 22

THE SEX AND RACIAL DISTRIBUTION
OF GRADUATES BY TYPES OF AWARDS

	All Respondents		SEX				RACE			
			Men		Women		White		Minority	
	N	%	N	%	N	%	N	%	N	%
AAS	1,435	63	939	64	496	60	1,319	64	116	51
Diploma	394	17	385	26	9	1	371	18	23	10
Certificate	466	20	141	10	325	39	377	18	89	39
TOTAL	2,295	100	1,465	100	830	100	2,067	100	228	100

TABLE 23

MEDIAN AGE OF RESPONDENTS BY CATEGORIES AT TIME OF STUDY

CATEGORY	MEDIAN AGE		
	Men	Women	Overall
All Respondents	23.2	22.2	22.8
White	23.1	22.1	22.8
Minority	23.4	22.6	22.8
Nongraduates	23.3	22.2	22.9
Graduates	22.9	22.2	22.6
By Types of Awards (Graduates Only)			
AAS	23.2	22.3	22.9
Diploma	22.4	21.5	22.3
Certificate	22.5	21.8	21.9
By Curricular Areas (Graduates Only)			
Business	-	-	22.4
Communications/Media	-	-	22.3
Engineering	-	-	22.6
Health Services	-	-	25.9
Public Service	-	-	23.2
Other	-	-	23.4
By Year of Graduation (Graduates Only)			
1966-67	-	-	25.5
1967-68	-	-	24.4
1968-69	-	-	23.2
1969-70	-	-	22.7
1970-71	-	-	21.8
1971-72	-	-	21.7

TABLE 24

MARITAL STATUS OF ALL RESPONDENTS BY RACE AND SEX

	Men		Women		Total	
	N	%	N	%	N	%
ALL RESPONDENTS						
Single	1,718	40	759	40	2,477	40
Married	2,488	58	1,002	54	3,490	57
Other	85	2	112	6	197	3
TOTAL	4,291	100	1,873	100	6,164	100
WHITE						
Single	1,548	39	584	39	2,132	39
Married	2,302	59	840	55	3,142	58
Other	75	2	91	6	166	3
TOTAL	3,925	100	1,515	100	5,440	100
MINORITY						
Single	170	46	175	49	345	48
Married	186	51	162	45	348	48
Other	10	3	21	6	31	4
TOTAL	366	100	358	100	724	100

TABLE 25

MARITAL STATUS OF GRADUATE AND NONGRADUATE RESPONDENTS BY SEX

	Men		Women		Total	
	N	%	N	%	N	%
GRADUATES						
Single	628	44	359	45	987	44
Married	776	54	395	50	1,171	53
Other	26	2	43	5	69	3
TOTAL	1,430	100	797	100	2,227	100
NONGRADUATES						
Single	1,090	38	400	37	1,490	38
Married	1,712	60	607	57	2,319	59
Other	59	2	69	6	128	3
TOTAL	2,861	100	1,076	100	3,937	100

TABLE 26

MARITAL STATUS OF GRADUATE RESPONDENTS
BY TYPES OF AWARDS AND CURRICULAR AREAS

TYPES OF AWARD

	Total		AAS		Diploma		Certificate	
	N	%	N	%	N	%	N	%
Single	987	44	639	45	155	41	188	42
Married	1,171	53	713	51	218	57	234	53
Other	69	3	51	4	6	2	23	5
TOTAL	2,227	100	1,403	100	379		445	100

CURRICULAR AREA

	Total		Business		Communications		Engineering		Health		Public Service		Misc.	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Single	987	44	497	50	18	55	323	41	53	27	29	39	67	49
Married	1,171	53	466	47	14	42	459	58	124	64	41	56	67	49
Other	69	3	30	3	1	3	12	1	18	9	4	5	4	2
TOTAL	2,227	100	993	100	33	100	794	100	195	100	74	100	138	100

TABLE 27

JURISDICTIONAL RESIDENCE OF FORMER OCCUPATIONAL-TECHNICAL STUDENTS, ALL RESPONDENTS BY SEX, RACE, GRADUATES AND NONGRADUATES

	ALL RESPONDENTS				
	Virginia Residents		Nonresidents		Total
Sex	N	%	N	%	N
Men	4,355	98	79	2	4,434
Women	1,926	99	21	1	1,947
Race					
White	5,515	98	83	2	5,598
Minority	767	98	17	2	784
Graduation Status					
Graduates	2,269	98	35	2	2,304
Nongraduates	4,013	98	65	2	4,078

TABLE 28

PARENTS' EDUCATION OF GRADUATE AND NONGRADUATE RESPONDENTS

	ALL RESPONDENTS						GRADUATES				NONGRADUATES			
	Father		Mother		Total		Father		Mother		Father		Mother	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Under 8 Years	1,432	23	793	13	2,225	18	554	25	319	14	878	22	474	12
Completed 8th Grade	732	12	536	9	1,268	11	279	12	187	9	453	12	349	9
Attended High School	1,111	18	1,177	20	2,288	19	405	18	434	20	706	18	743	19
High School Graduate	1,568	26	2,490	41	4,058	33	576	26	874	40	992	25	1,616	42
Attended College	737	12	751	12	1,488	12	243	11	272	12	494	13	479	13
4-Yr. College Graduate	382	6	261	4	643	5	124	6	94	4	258	7	167	4
Master's or Higher	163	3	54	1	217	2	48	2	15	1	115	3	39	1
TOTAL	6,125	100	6,062	100	12,187	100	2,229	100	2,195	100	3,896	100	3,867	100

TABLE 29

PARENT'S EDUCATION OF GRADUATE RESPONDENTS BY TYPES OF AWARDS RECEIVED

	AAS				DIPLOMA				CERTIFICATE			
	Father		Mother		Father		Mother		Father		Mother	
	N	%	N	%	N	%	N	%	N	%	N	%
Under 8 Years	289	21	167	12	106	26	67	18	157	35	85	20
Completed 8th Grade	157	11	107	8	61	16	33	9	60	13	46	10
Attended High School	244	18	258	19	74	19	77	20	84	19	97	22
High School Graduate	380	27	558	41	98	26	146	39	96	21	164	38
Attended College	174	12	199	14	29	8	46	12	38	9	25	6
4-Yr. College Graduate	105	8	72	5	7	2	9	2	10	2	13	3
Master's or Higher	42	3	11	1	3	1	1	-	3	1	3	1
TOTAL	1,391	100	1,372	100	378	100	379	100	448	100	433	100

TABLE 30

PARENTS' EDUCATION OF GRADUATE RESPONDENTS BY CURRICULAR AREAS COMPLETED

	Business		Communications		Engineering		Health		Public Service		Other	
Father's Educational Level	N	%	N	%	N	%	N	%	N	%	N	%
Under 8 Years	251	25	9	28	199	25	55	28	9	12	31	22
Completed 8th Grade	117	12	4	12	114	14	25	13	11	15	8	6
Attended High School	190	19	5	15	150	19	26	13	10	14	24	17
High School Graduate	263	26	7	21	219	28	36	19	16	22	35	25
Attended College	108	11	4	12	71	9	23	12	18	25	19	14
4-Yr. College Graduate	53	5	2	6	29	4	19	10	5	7	16	11
Master's or Higher	17	2	2	6	9	1	9	5	4	5	7	5
TOTAL	999	100	33	100	791	100	193	100	73	100	140	100
Mother's Educational Level												
Under 8 Years	131	13	3	10	121	15	37	20	8	11	19	14
Completed 8th Grade	72	7	3	10	74	9	23	12	6	8	9	7
Attended High School	208	21	5	16	154	20	26	14	12	17	29	22
High School Graduate	414	42	9	29	319	40	51	27	28	39	53	39
Attended College	114	12	6	19	93	12	32	17	12	17	15	11
4-Yr. College Graduate	36	4	4	13	24	3	16	9	6	8	8	6
Master's or Higher	6	1	1	3	4	1	2	1	-	-	2	1
TOTAL	981	100	31	100	789	100	187	100	72	100	135	100

TABLE 31

PARENTS' EDUCATION OF ALL RESPONDENTS BY RACE

	WHITE						MINORITY					
	Father		Mother		Total		Father		Mother		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
Under 8 Years	1,197	22	657	12	1,854	17	235	34	136	20	371	27
Completed 8th Grade	641	12	452	8	1,093	10	91	13	84	12	175	13
Attended High School	971	18	1,008	19	1,979	18	140	20	169	25	309	22
High School Graduate	1,447	27	2,285	43	3,732	35	121	17	205	30	326	24
Attended College	676	12	697	13	1,373	13	61	9	54	8	115	8
4-Yr. College Graduate	343	6	230	4	573	5	39	5	31	4	70	5
Master's or Higher	150	3	47	1	197	2	13	2	7	1	20	1
TOTAL	5,425	100	5,376	100	10,801	100	700	100	686	100	1,386	100

TABLE 32

FATHER'S OCCUPATION OF RESPONDENTS BY SEX AND RACE

	All Respondents		SEX				RACE			
			Men		Women		White		Minority	
	N	%	N	%	N	%	N	%	N	%
Clerical and Sales	357	6	245	6	112	6	344	6	9	2
Managerial or Office	653	10	447	10	206	11	621	12	8	2
Professional	638	10	410	10	228	12	581	11	23	4
Proprietor or Owner	849	14	641	15	208	11	781	14	40	7
Semi-Pro. and Technical	297	5	220	5	77	4	280	5	8	2
Skilled	1,707	28	1,240	29	467	25	1,561	29	110	21
Semi-Skilled	789	13	549	13	240	13	656	12	115	22
Unskilled	465	8	275	6	190	10	293	5	160	30
Service Worker	256	4	174	4	82	5	224	4	25	5
Unemployed	43	1	29	1	14	1	34	1	7	1
Unknown	83	1	53	1	30	2	58	1	21	4
TOTAL	6,137	100	4,283	100	1,854	100	5,433	100	526	100

TABLE 33

FATHER'S OCCUPATION OF GRADUATE AND NONGRADUATE RESPONDENTS

	All Respondents		Graduates		Nongraduates	
	N	%	N	%	N	%
Clerical and Sales	357	6	139	6	218	6
Managerial or Office	653	11	208	9	445	12
Professional	638	10	210	9	428	11
Proprietor or Owner	849	14	340	15	509	13
Semi-Pro. and Technical	297	5	100	4	197	5
Skilled	1,707	28	616	28	1,091	28
Semi-Skilled	789	13	305	14	434	12
Unskilled	465	7	193	9	272	7
Service Worker	256	4	90	4	166	4
Unemployed	43	1	12	1	31	1
Unknown	83	1	28	1	55	1
TOTAL	6,137	100	2,241	100	3,896	100

TABLE 34

FATHER'S OCCUPATION OF GRADUATE RESPONDENTS
BY TYPES OF AWARDS RECEIVED

	AAS		Diploma		Certificate	
	N	%	N	%	N	%
Clerical and Sales	89	6	17	5	31	7
Managerial or Office	172	12	118	5	18	4
Professional	171	12	10	3	26	6
Proprietor or Owner	202	15	74	19	62	14
Semi-Pro. and Technical	70	5	16	4	13	3
Skilled	361	26	128	34	127	28
Semi-Skilled	171	12	62	16	69	15
Unskilled	90	7	31	8	72	16
Service Worker	54	4	16	4	19	4
Unemployed	5	-	4	1	3	1
Unknown	11	1	5	1	12	2
TOTAL	1,396	100	381	100	452	100

TABLE 35

FATHER'S OCCUPATION OF GRADUATE RESPONDENTS BY CURRICULAR AREAS

	Business		Communications		Engineering		Health		Public Service		Other	
	N	%	N	%	N	%	N	%	N	%	N	%
Clerical and Sales	75	8	1	3	40	5	8	4	6	8	9	7
Managerial or Office	103	10	2	6	58	7	19	10	12	17	14	10
Professional	79	8	3	9	57	7	33	17	15	20	23	16
Proprietor or Owner	141	14	7	22	138	17	23	12	8	11	23	16
Semi-Pro. and Technical	39	4	3	9	32	4	13	7	3	5	10	7
Skilled	280	28	5	15	253	32	39	20	15	20	24	17
Semi-Skilled	146	15	5	15	111	14	20	10	6	8	17	12
Unskilled	91	9	5	15	59	7	26	14	1	1	11	8
Service Worker	34	3	1	3	32	4	10	5	6	8	7	5
Unemployed	4	-	-	-	7	1	-	-	1	1	-	-
Unknown	11	1	1	3	12	2	1	1	1	1	2	2
TOTAL	1,003	100	133	100	799	100	192	100	74	100	140	100

TABLE 36

CUMULATIVE GRADE POINT AVERAGE (GPA)
OF RESPONDENTS BY SEX

	N	MEAN
ALL GRADUATES	2,307	2.76
Men	1,476	2.72
Women	831	2.84
WHITE GRADUATES	2,079	2.79
Men	1,389	2.73
Women	690	2.89
MINORITY GRADUATES	228	2.63
Men	87	2.66
Women	141	2.61
AAS	1,435	2.75
Men	939	2.67
Women	496	2.88
DIPLOMA	394	2.86
Men	385	2.86
Women	9	2.98
CERTIFICATE	466	2.72
Men	141	2.59
Women	325	2.77
ALL NONGRADUATES	4,080	2.21
Men	2,962	2.14
Women	1,118	2.38

TABLE 37

CUMULATIVE GRADE POINT AVERAGE (GPA)
OF RESPONDENTS BY CURRICULAR AREAS

Curricular Areas	N	Mean
Business	1,036	2.69
Communications/Media	34	2.75
Engineering	823	2.83
Health Services	199	2.91
Public Service	74	2.83
Other	141	2.81

NUMBER OF YEARS (QUARTERS) TO COMPLETE A GIVEN AWARD FROM INITIAL ENROLLMENT TO GRADUATION BY ACADEMIC YEAR, IN PERCENTAGES

	Academic Year				
	1966-67 %	1967-68 %	1968-69 %	1969-70 %	1970-71 %
			AAS		
Up to 1 Year (Up to 3 Quarters)	-	2	2	1	-
Over 1 to 2 Years (4 to 6 Quarters)	26	7	7	16	4
Over 2 to 3 Years (7 to 9 Quarters)	74	87	80	57	67
Over 3 to 4 Years (10 to 12 Quarters)	-	4	10	23	22
Over 4 to 5 Years (13 to 15 Quarters)	-	-	1	3	7
Over 5 Years (16 Quarters and Over)	-	-	-	1	-
			DIPLOMA		
Up to 1 Year (Up to 3 Quarters)	-	-	-	-	-
Over 1 to 2 Years (4 to 6 Quarters)	-	-	9	14	1
Over 2 to 3 Years (7 to 9 Quarters)	-	-	91	36	54
Over 3 to 4 Years (10 to 12 Quarters)	-	-	-	49	38
Over 4 to 5 Years (13 to 15 Quarters)	-	-	-	1	5
Over 5 Years (16 Quarters and Over)	-	-	-	-	2
			CERTIFICATE		
Up to 1 Year (Up to 3 Quarters)	-	4	5	2	4
Over 1 to 2 Years (4 to 6 Quarters)	33	81	43	57	25
Over 2 to 3 Years (7 to 9 Quarters)	67	15	51	33	60
Over 3 to 4 Years (10 to 12 Quarters)	-	-	-	8	8
Over 4 to 5 Years (13 to 15 Quarters)	-	-	-	-	3
Over 5 Years (16 Quarters and Over)	-	-	-	-	-

Note: Summer sessions excluded

TABLE 39

AVERAGE NUMBER OF CREDIT HOURS EARNED
BY TYPES OF AWARDS AND BY ACADEMIC YEAR

	AAS	DIPLOMA	CERTIFICATE
1966-67	92	-	55
1967-68	98	--	56
1968-69	97	106	58
1969-70	100	101	53
1970-71	102	108	50

APPENDIX B
COLLEGE DATA FORM

College _____ Code _____ [1]

Campus _____ Code _____ [2]

Person Completing Form _____

VIRGINIA COMMUNITY COLLEGE SYSTEM
DATA ELEMENTS FOR FORMER STUDENTS

PLEASE PRINT ALL ENTRIES

Date Prepared _____ [3] Page _____ of _____

[4] Social Security Number	NAME [5] Last	[6] First	[7] MI	HOME ADDRESS [8] Number Street	[9] City	[10] State	[11] Zip	[12] Year of Birth	[13] Sex	[14] Home Residence	[15] Quarter Year First Enrolled	[16] Quarter Year Last Enrolled	[17] Curriculum First Enrolled	[18] Curriculum Last Enrolled	[19] Credits Earned	[20] Cumulative GPA	[21] Degree	[22] Year Graduated
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73 80

NOTE: Actual size of this form is 11" x 16 1/2"

APPENDIX C

CODING INSTRUCTIONS AND DATA CODES

INSTRUCTIONS

	Description of Data	Coding Instructions (Please Print All Entries)
1.	College Name and College Code	Print the Name and 3 digit code number for your college
2.	Campus Code	Campus Name and Code on each page of the Student Data Form
3.	Date Prepared and Page Number	Show date prepared and print page as Page 1 of 7, 2 of 7, 3 of 7, . . . 7 of 7
4.	Social Security Number	9 digit social security number
5.	Last Name	Self-explanatory
6.	First Name	Self-explanatory
7.	Middle Initial	Self-explanatory
8.	House Number/Street	Self-explanatory
9.	City or Town	Print full name of city or town in mailing address
10.	State	Print abbreviated name of state (See Code List 1)
11.	Zip	Print the 5 digit zip code
12.	Year of Birth	Print last 2 digits of year of birth (e.g.: for 1950 print 50)
13.	Sex	1 - Male, 2 - Female
14.	Home Residence	Show appropriate 3 digit code for county, city, out-of-state residence (See Code List 3)
15.	Quarter & Year 1st Enrolled	(See Code List 2)
16.	Quarter & Year Last Enrolled	(See Code List 2)
17.	Curriculum 1st Enrolled in	See Curriculum List - Code List 4
18.	Curriculum Last Enrolled in	See Curriculum List - Code List 4
19.	Total Credits Earned	Write total credits earned
20.	Cumulative GPA	Write Cumulative GPA (e.g. 3.33)
21.	Type of Degree Earned	1 - AA 2 - AS 3 - AAS 4 - Diploma 5 - Certificate (-) no degree
22.	Year of Graduation	1 - 1966-67 2 - 1967-68 3 - 1968-69 4 - 1969-70 5 - 1970-71 (-) no graduation

Code List 1

OFFICIAL ABBREVIATIONS OF STATES

Alabama	AL
Alaska	AK
Arizona	AZ
Arkansas	AR
California	CA
Colorado	CO
Connecticut	CT
Delaware	DE
Washington, D. C.	DC
Florida	FL
Georgia	GA
Guam	GU
Hawaii	HI
Idaho	ID
Illinois	IL
Indiana	IN
Iowa	IA
Kansas	KS
Kentucky	KY
Louisiana	LA
Maine	ME
Maryland	MD
Massachusetts	MA
Michigan	MI
Minnesota	MN
Mississippi	MS
Missouri	MO
Montana	MT
Nebraska	NE
Nevada	NV
New Hampshire	NH
New Jersey	NJ
New Mexico	NM
New York	NY
North Carolina	NC
North Dakota	ND
Ohio	OH
Oklahoma	OK
Oregon	OR
Pennsylvania	PA
Puerto Rico	PR
Rhode Island	RI
South Carolina	SC
South Dakota	SD
Tennessee	TN
Texas	TX
Utah	UT
Vermont	VT
Virginia	VA
Virgin Islands	VI
Washington	WA
West Virginia	WV
Wisconsin	WI
Wyoming	WY

Code List 2

CODES FOR QUARTER AND YEAR OF ENROLLMENT

	Quarter Code
Winter	1
Spring	2
Summer	3
Fall	4

	Year Code
Summer and Fall, 1966	66
Winter, Spring, Summer, and Fall, 1967	67
Winter, Spring, Summer, and Fall, 1968	68
Winter, Spring, Summer, and Fall, 1969	69
Winter, Spring, Summer, and Fall, 1970	70
Winter, Spring, Summer, and Fall, 1971	71

Example: A student whose 1st enrollment was Fall 1968 should be coded as 468.

Code List 3

COUNTIES AND INDEPENDENT CITIES IN VIRGINIA

Counties		Counties		Cities	
001	Accomack	049	King George	120	Alexandria
002	Albemarle	050	King William	130	Bedford
003	Alleghany	051	Lancaster	140	Bristol
004	Amelia	052	Lee	160	Buena Vista
005	Amherst	053	Loudoun	180	Charlottesville
006	Appomattox	054	Louisa	200	Chesapeake
007	Arlington	055	Lunenburg	220	Clifton Forge
008	Augusta	056	Madison	240	Colonial Heights
009	Bath	057	Mathews	260	Covington
010	Bedford	058	Mecklenburg	280	Danville
011	Bland	059	Middlesex	290	Emporia
012	Botetourt	060	Montgomery	300	Fairfax
013	Brunswick	061	Nansemond	320	Falls Church
014	Buchanan	062	Nelson	340	Franklin
015	Buckingham	063	New Kent	360	Fredericksburg
016	Campbell	064	Northhampton	380	Galax
017	Carolina	065	Northumberland	400	Hampton
018	Carroll	066	Nottoway	420	Harrisonburg
019	Charles City	067	Orange	440	Hopewell
020	Charlotte	068	Page	460	Lexington
021	Chesterfield	069	Patrick	480	Lynchburg
022	Clarke	070	Pittsylvania	500	Martinsville
023	Craig	071	Powhatan	520	Newport News
024	Culpeper	072	Prince Edward	540	Norfolk
025	Cumberland	073	Prince George	560	Norton
026	Dickenson	074	Prince William	580	Petersburg
027	Dinwiddie	075	Pulaski	600	Portsmouth
028	Essex	076	Rappahannock	620	Radford
029	Fairfax	077	Richmond	640	Richmond
030	Fauquier	078	Roanoke	660	Roanoke
031	Floyd	079	Rockbridge	680	Salem
032	Fluvanna	080	Rockingham	700	South Boston
033	Franklin	081	Russell	720	Staunton
034	Frederick	082	Scott	740	Suffolk
035	Giles	083	Shenandoah	760	Virginia Beach
036	Gloucester	084	Smyth	780	Waynesboro
037	Goochland	085	Southampton	800	Williamsburg
038	Grayson	086	Spotsylvania	820	Winchester
039	Greene	087	Stafford		
040	Greensville	088	Surry		
041	Halifax	089	Sussex		
042	Hanover	090	Tazewell	999	OUT-OF-STATE
043	Henrico	091	Warren		
044	Henry	092	Washington		
045	Highland	093	Westmoreland		
046	Isle of Wight	094	Wise		
047	James City	095	Wythe		
048	King & Queen	096	York		

MASTER CURRICULUM LIST AND CODE NUMBERS

Standard Code Number	Curriculum
	Business and Related Programs
203	Accounting Tech. and Accounting
209	Data Proc. (Computer Programming)
210	Data Proc. (Mach. and Computer Opr.)
212	Business Mgt. and/or Gen. Business
214	Data Proc. (Unit Records)
215	Data Proc. (Aux. Equip. Opr.)
216	Data Proc. (Keypunch)
218	Clerical Studies
235	Hotel, Restaur. and Inst. Mgt.
240	Hotel-Motel Management
241	Food Service Management
242	Institutional Management
252	Merchandising Mgt. and/or Gen. Merch.
272	Real Estate Management
275	Stenography
276	Secretarial Science
280	Traffic Management
	Communications and Media
513	Commercial Art and/or Media Adv. Arts
	Engineering and Related Programs
901	Architectural Tech. (Include Engr.)
902	Auto Analysis and Repair (Mechanics)
904	Air Conditioning and Refrigeration
905	Aeronautical Technology (Aviation) and/or Aircraft Maintenance
908	Auto Body Repair
909	Automotive Technology
910	Auto Diagnosis and Tune-Up
912	Auto Engine Mechanics
913	Chemical Technology
915	Civil Engineering Technology
916	Broadcast Engineering Technology
918	Costmetology
920	Diesel Mechanics
921	Draft. and Des. Tech. and/or Draft. and Des.
922	Drafting
923	Mechanical Drafting
924	Electrical Engineering Technology
925	Electronics Tech. and/or Electronics
926	Automotive Mechanic
927	Civil Technology
930	Architectural Drafting
931	Structural Drafting
937	Ind. Engr. Tech. and/or Ind. Mgt.
938	Instrumentation
941	Electrical Tech. and/or Electrical-Electronics Tech. and/or Electrical-Electronics Engr. Tech.
942	Electricity
943	Electrical-Electronics
944	Ind. Electricity and Electronics
945	Electromechanical Technology and/or Ind. Electromechanical Repair
947	Electronics Appliance Servicing
948	Electronics Servicing
949	Industrial Electronics
950	Machine Technology
952	Mach. Tool Operator (Operation)
953	Marine Technology
954	Masonry
955	Mechanical Engineering Technology
956	Mechanical Technology
957	Machine Operation
958	Machine Operator and Machinist
959	Machine Shop
960	Mach. Tool Maintenance and Repair
961	Tool-Making
962	Plumbing
963	Industrial Technology
964	Printing
966	Engineering Technical Assistant
972	Television and Radio Serv. and Rpr.
980	Sheet Metal
983	Textile Management
995	Welding
996	Carpentry
998	Mining Technology
999	Water Well Drilling Tech. and/or Water Well Drilling
	Health Services and Related Programs
117	Dent. Lab. Tech. and/or Dent. Assist.
151	Medical Laboratory Technology
152	Medical Records Technology
154	Mental Health Technology
155	Mortuary Science
156	Nursing
157	Practical Nursing
172	Radiologic Technology
188	Animal Technology
	Public and Related Technology
176	Community and Social Serv. Tech. and/or Comm. and Social Serv. Assist.
427	Fire Science and/or Firefighting
460	Recreation and Parks Leadership
463	Law Enforcement
464	Police Science and/or Corrections
468	Citizenship Development
828	Environmental Technology

Standard Code Number	Curriculum
	Miscellaneous
302	Agricultural Business Technology
328	Forest Technology
628	Teacher Aide
632	Library Aide
633	Audio Visual Aide
	College Transfer Codes
504	Art
213	Business Administration
648	Liberal Arts
555	Music
831	Pre-Engineering
625	Pre-Teacher Education
880	Science
	General
001	No Curriculum Area
002	General Education
003	Pre-Professional
004	Developmental and/or foundation
005	Unclassified and/or special

APPENDIX D

FOLLOW-UP QUESTIONNAIRE

VIRGINIA COMMUNITY COLLEGE SYSTEM
SURVEY OF FORMER STUDENTS
SPRING, 1972

Dear Former Student:

Community colleges in Virginia are still in their early stages of growth, and we are searching for ways to improve our educational programs.

To help us, we ask you to complete this questionnaire. It requires information about your current activities and your earlier community college experience. It will require about 10 minutes of your time to complete. Your responses will be grouped with those of other former students, and will be used only for this study.

Please complete the questionnaire and return it to us within three days. A pre-addressed and stamped return envelope is enclosed for your convenience.

Thank you for your help.

Very truly yours,

Fred A. Snyder

Fred A. Snyder, Director
Research & Planning Division
Virginia Department of Community Colleges

(Please correct name and address if necessary)

DIRECTIONS:
USE PENCIL ONLY. MARK THE BOX ☒ OPPOSITE EACH ITEM THAT BEST REPRESENTS YOUR ANSWER(S). COMPLETELY ERASE ANY ANSWERS YOU WISH TO CHANGE.

1. (The following is needed as information about equal opportunity for education or employment.)
I consider myself as:

[1] ☐ White
[2] ☐ Black or Afro-American
[3] ☐ American Indian
[4] ☐ Oriental
[5] ☐ Spanish surnamed American
[6] ☐ Other (specify) _____

2. Show your father's and your mother's highest educational level.

	Father	Mother
Under 8 years	[1] ☐	☐
Completed 8th grade	[2] ☐	☐
Attended high school	[3] ☐	☐
High school graduate	[4] ☐	☐
Attended college	[5] ☐	☐
Four-year college graduate	[6] ☐	☐
Master's or higher degree	[7] ☐	☐

3. Father's type of work. If he is retired or deceased, refer to his former job.

[1] ☐ Clerical and Sales – bank teller, salesman, office or sales clerk, etc.
[2] ☐ Managerial or Office Occupations – office or sales manager, bank officer, etc.
[3] ☐ Professional – CPA, dentist, engineer, teacher, military officer, etc.
[4] ☐ Proprietor or Owner – farm owner, owner of a small business, etc.
[5] ☐ Semi-professional and Technical – engineering technician, dental technician, practical nurse, surveyor, etc.
[6] ☐ Semi-skilled worker – machine operator, bus driver, meat cutter, etc.
[7] ☐ Service worker – barber, policeman, waiter, fireman, etc.
[8] ☐ Skilled worker or foreman – baker, carpenter, electrician, foreman, etc.
[9] ☐ Unskilled worker – laborer, filling station attendant, farm worker, etc.
[10] ☐ Unemployed
[11] ☐ Unknown

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4. Your Marital Status.

1 ☐ Single
2 ☐ Married
3 ☐ Other

5. Mark the one item that best describes your present employment or related status.

1 ☐ Full-time employment
2 ☐ Part-time employment
3 ☐ College full-time
4 ☐ Military service
5 ☐ Housewife
6 ☐ Unemployed
7 ☐ Other (specify)_____

IF YOU HAVE NEVER BEEN EMPLOYED FULL-TIME SINCE LEAVING THE COLLEGE, GO DIRECTLY TO QUESTION 14.

6. Show the state in which you presently work.

1 ☐ Virginia
2 ☐ Maryland
3 ☐ West Virginia
4 ☐ North Carolina
5 ☐ Tennessee
6 ☐ District of Columbia
7 ☐ Kentucky
8 ☐ Another state (specify)_____

7. Show the approximate distance of your present employment from your former community college.

1 ☐ Up to 25 miles
2 ☐ 25 – 49 miles
3 ☐ 50 – 99 miles
4 ☐ 100 miles and over

8. Was the curriculum you were enrolled in at the community college related to your first job? Your present job?

	First Job	Present Job
Yes, very much	☐	☐
Yes, somewhat	☐	☐
No, or very little	☐	☐

9. If your present job is not related to your community college curriculum, please check each reason which applies.

1 ☐ Could not find a job in field of preparation
2 ☐ Found better paying job in another field
3 ☐ Preferred to work in another field
4 ☐ Qualified for new job by continuing my education
5 ☐ Was not sufficiently qualified for a job in my field of college preparation
6 ☐ Other (specify)_____

10. Please indicate both your initial yearly salary upon leaving the community college and your present salary. (This information will not be identified with you as an individual, but will be grouped with that from other former students.)

Initial Salary		Present Salary
1 ☐	Up to $2,999	1 ☐
2 ☐	$3,000 – 3,999	2 ☐
3 ☐	$4,000 – 4,999	3 ☐
4 ☐	$5,000 – 5,999	4 ☐
5 ☐	$6,000 – 6,999	5 ☐
6 ☐	$7,000 – 7,999	6 ☐
7 ☐	$8,000 – 8,999	7 ☐
8 ☐	$9,000 – 9,999	8 ☐
9 ☐	$10,000 – 10,999	9 ☐
10 ☐	$11,000 – 11,999	10 ☐
11 ☐	$12,000 and over	11 ☐

11. Please rate your satisfaction with your present job in terms of each of the aspects shown below. Mark one answer for each aspect.

	Superior	Good	Fair	Poor
a. Challenging and interesting work	☐	☐	☐	☐
b. Relations with colleagues	☐	☐	☐	☐
c. Salary	☐	☐	☐	☐
d. Opportunity for advancement	☐	☐	☐	☐
e. Overall aspects of your job	☐	☐	☐	☐

12. Please mark the one source most helpful in getting your initial full time job upon leaving the community college. Mark one only.

1 ☐ Community college placement service
2 ☐ College staff member other than a placement service
3 ☐ Employer contact at the college
4 ☐ State employment service
5 ☐ Answered an advertisement
6 ☐ Relative or friend
7 ☐ Other (specify)_____

13. Please mark (X) each statement which shows your feelings about the help you obtained at the community college in getting your first job upon leaving.

1 ☐ The placement office was helpful
2 ☐ Faculty members were helpful
3 ☐ Little help was given to me or others in my curriculum
4 ☐ Faculty members were willing to help, but didn't seem to know what opportunities were available
5 ☐ Job placement service was not adequate

ALL PERSONS SHOULD ANSWER QUESTIONS 14 THRU 22.

14. To what extent have you continued your education since leaving the community college? Mark each statement that applies.

1 ☐ Still enrolled at the community college
2 ☐ None
3 ☐ Completed one or more employer training program
4 ☐ Took courses at another two-year college
5 ☐ Took courses at a four-year college or university
6 ☐ Completed an associate degree
7 ☐ Completed a bachelor's degree
8 ☐ Completed master's degree or beyond
9 ☐ Other (specify)_____

15. If you have continued your education since leaving the community college, please mark each reason for such further education or training which applies to you.

1 ☐ To prepare for further job opportunities in my present occupation
2 ☐ To improve my skills and abilities in my present job
3 ☐ For my own general education and personal satisfaction
4 ☐ To change occupation
5 ☐ It is expected of me by my employer
6 ☐ Other (specify)_____

16. Was the curriculum you were enrolled in at the community college related to your later study, if you have continued your education?

1 ☐ Yes, very much
2 ☐ Yes, somewhat
3 ☐ No, or very little

17. Did you at any time change from one curriculum to another while at the community college?

1 ☐ Yes 2 ☐ No

18. If your answer to question 17 was Yes, please mark the reason(s) for changing your curriculum as noted below.

1 ☐ Dissatisfied with curriculum
2 ☐ Dissatisfied with instruction
3 ☐ Low achievement
4 ☐ Loss of interest
5 ☐ Personal problem
6 ☐ Little opportunity in this field
7 ☐ Parents objected
8 ☐ Counselor's advice
9 ☐ A wrong choice of curriculum in the first place
10 ☐ Changed career goal(s)
11 ☐ Other (specify)_____

19. Would you recommend the community college to a person seeking to complete the same program you studied? 1 ☐ Yes 2 ☐ No

20. How well did the community college prepare you in each of the following aspects? Mark only one answer for each aspect.

	Superior	Good	Fair	Poor
a. Technical knowledge and understanding	☐	☐	☐	☐
b. Job or learning skills	☐	☐	☐	☐
c. Getting along with people	☐	☐	☐	☐
d. Self-understanding	☐	☐	☐	☐
e. Knowledge about career opportunities in your field	☐	☐	☐	☐
f. Communication skills (oral or written)	☐	☐	☐	☐
g. General education	☐	☐	☐	☐

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21. How valuable are each of these aspects of your community college education to you now? Mark only one answer for each aspect.

	Highly Valuable	Valuable	Some Value	Little or No Value
a. Technical knowledge and understanding	☐	☐	☐	☐
b. Job or learning skills	☐	☐	☐	☐
c. Getting along with people	☐	☐	☐	☐
d. Self-understanding	☐	☐	☐	☐
e. Knowledge about career opportunities in your field	☐	☐	☐	☐
f. Communication skills (oral or written)	☐	☐	☐	☐
g. General education	☐	☐	☐	☐

22. Please give your opinion about each of the following aspects of your community college experience. Mark only one answer for each aspect.

	Superior	Good	Fair	Poor
a. Shop and laboratory instruction	☐	☐	☐	☐
b. Academic instruction	☐	☐	☐	☐
c. Shop and laboratory facilities and equipment	☐	☐	☐	☐
d. All other college facilities	☐	☐	☐	☐
e. Counseling given to students	☐	☐	☐	☐
f. Social activities	☐	☐	☐	☐
g. Interest in students shown by faculty	☐	☐	☐	☐
h. Evaluation of students' performance by faculty	☐	☐	☐	☐
i. Overall	☐	☐	☐	☐

ONLY THOSE WHO EARNED A CERTIFICATE, DIPLOMA, OR ASSOCIATE DEGREE SHOULD ANSWER QUESTION 23.

23. In every occupational-technical curriculum, there is a "mix" of courses in (a) applied technical and skills preparation and (b) general education. Please show the proportional "mix" of such courses that you would like to see in your curriculum at your community college.

1 ☐ O.K. as is. Don't change it.

2 ☐ Increase the proportion of courses in technical and skills areas.

3 ☐ Increase the proportion of courses in general education.

ONLY THOSE WHO DID NOT COMPLETE AN EDUCATIONAL PROGRAM AT THE COMMUNITY COLLEGE SHOULD ANSWER QUESTIONS 24 THRU 27.

24. What was your primary educational goal when you initially enrolled at the community college? Mark one only.

1 ☐ Earn a certificate or diploma to improve my employment and career skills.

2 ☐ Earn an associate degree or a higher degree

3 ☐ Upgrade technical knowledge and skills in specific fields by taking just one or several courses

4 ☐ Increase my general knowledge and level of education

5 ☐ Other (specify)

25. Was the goal you noted above achieved before you left the community college?

1 ☐ Yes 2 ☐ No

26. What principal reason(s) made you decide to discontinue attendance at the community college? Mark each that applies.

1 ☐ Employment
2 ☐ Marriage
3 ☐ Entered military service
4 ☐ Lack of financial support
5 ☐ Transferred to another college
6 ☐ Moved to another area
7 ☐ Lack of transportation
8 ☐ Completed my educational goal
9 ☐ Personal adjustment problem
10 ☐ Lack of interest
11 ☐ Low achievement
12 ☐ Change in educational goal
13 ☐ Other

27. Do you intend to return to a community college for additional work?

1 ☐ Yes 2 ☐ No

THANK YOU FOR YOUR ASSISTANCE

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APPENDIX E

REMINDER POSTCARD

911 EAST BROAD STREET, P. O. BOX 1558, RICHMOND, VIRGINIA 23219
OFFICE OF RESEARCH AND EVALUATION

FRONT SIDE

Dear Former Student:

We recently sent you a questionnaire requesting information about you and your activities since leaving the community college. Since the information is part of a study of our educational programs, it is important that we hear from you.

If you have not already done so, would you please complete the questionnaire and mail it to us today? We appreciate your participation.

Very truly yours,

Fred A. Snyder

Fred A. Snyder, Director
Division of Research & Planning
Department of Community Colleges

BACK SIDE

APPENDIX F

COVER LETTER

VIRGINIA DEPARTMENT OF COMMUNITY COLLEGES

May 1972

Dear Former Student:

We recently sent you a questionnaire requesting information about you and your activities since leaving the community college. We have not received your response, and it is important that we do. Therefore, we are enclosing another copy of the questionnaire and a pre-addressed, postage-paid return envelope for your convenience.

If you have not completed the questionnaire, please fill in the enclosed copy and mail it to us immediately. All responses will be treated as confidential and will be used only for research purposes. We appreciate your cooperation.

Very truly yours,

Fred A. Snyder

Fred A. Snyder
Director, Division of Research & Planning

APPENDIX G

FINAL FOLLOW-UP LETTER

VIRGINIA DEPARTMENT OF COMMUNITY COLLEGES

May 1972

Dear Former Student:

We recently sent you a questionnaire relating to a study of former students at Virginia community colleges. If you have not already completed this questionnaire and returned it to us, would you please take ten minutes to do so now?

The purpose of the questionnaire is to obtain information about your activities and feelings about your community college experience. Each bit of information will be used to evaluate how well the community colleges provide high-quality education to students. Please help us by returning the completed questionnaire today!

Your response will be treated in strictest confidence and used with those from other former students for this study only.

Very truly yours,

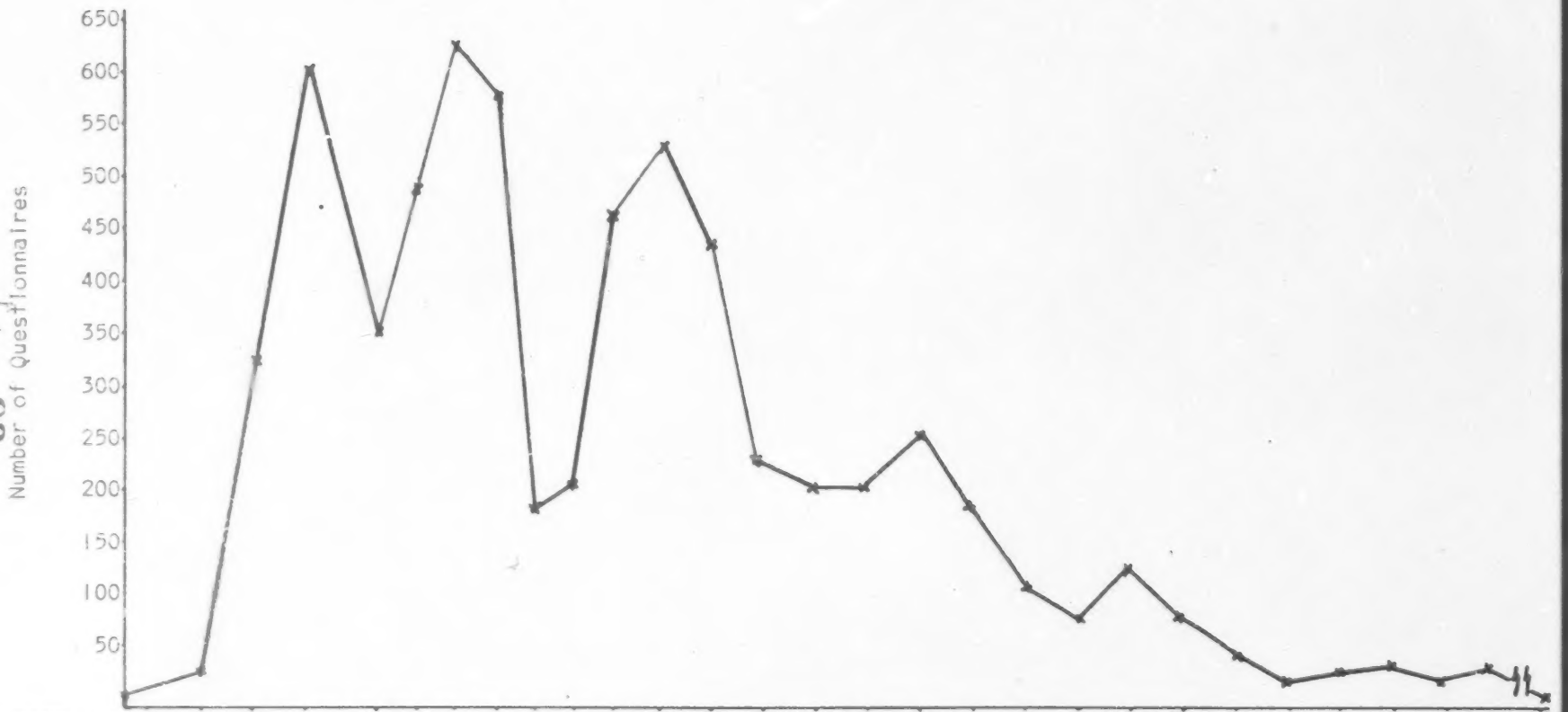
Fred A. Snyder

Fred A. Snyder, Director
Division of Research and Planning
Department of Community Colleges

FAS:TOG:vks

APPENDIX H

FLOW OF COMPLETED QUESTIONNAIRES



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APPENDIX I

VIRGINIA COMMUNITY COLLEGE SYSTEM
SURVEY OF FORMER STUDENTS
TELEPHONE INTERVIEW
Spring, 1972

DIRECTIONS: INDICATE THE ANSWERS BY WRITING THE APPROPRIATE NUMBER IN THE BLANK SPACE ON THE LEFT. WHERE THE INTERVIEWEE REFUSED TO RESPOND TO A SPECIFIC QUESTION, THEN JUST LEAVE THE SPACE BLANK AND PROCEED TO THE NEXT QUESTION. BEGIN TELEPHONE CONVERSATION:

I am (state your name & position) from (state name of college). As part of a survey of former students of (state name of community college), we mailed you a questionnaire to obtain information about your activities and opinions. Since we did not get a response from you, would you please help us by answering a few questions which appeared on the original questionnaire? It should take just three minutes. Let me assure you that your answers will be held in strictest confidence.

(2) What is the highest educational level completed by your father? (Pause for response) Your mother? (Use the answer given to select the appropriate number. Write this number in the blank space.)

___Father
___Mother

1 Under 8 years
2 Completed 8th grade
3 Attended high school
4 High school graduate
5 Attended college
6 Four-year graduate
7 Master's or higher degree

___(5) What is your present employment or school status? Are you employed full-time, part-time, or what? (Accept only one answer.)

1 Full-time employment
2 Part-time employment
3 College full-time
4 Military service
5 Housewife
6 Unemployed
7 Other (specify)_____

___(5A) Have you ever been employed full-time since leaving the college?

1 Yes
2 No

IF THE RESPONSE IS NO, SKIP QUESTIONS 8, 10, AND 11, AND GO DIRECTLY TO QUESTION 19.

(8) How much was your community college curriculum related to your initial full-time job upon leaving the community college? (Read the three choices.) Your present full-time job?

___Initial
___Present

1 Very much
2 Somewhat
3 Very little

(10) Would you please give us an estimate of your salary in your first full-time job after leaving the community college? (Pause for response) Also your present salary?

___Initial
___Present

1 Up to $2,999
2 $3,000-3,999
3 $4,000-4,999
4 $5,000-5,999
5 $6,000-6,999
6 $7,000-7,999
7 $8,000-8,999
8 $9,000-9,999
9 $10,000-10,999
10 $11,000-11,999
11 $12,000 and over

___(11) ASK THIS QUESTION ONLY IF THE SUBJECT IS NOW EMPLOYED FULL-TIME. Please rate your satisfaction with your present job in terms of the overall aspects of the job. Enter only one response.

(a) Is your satisfaction: (1) Superior? (2) Good? (3) Fair? (4) Poor?

(continue on other side)

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___(19) Would you recommend your community college to a person seeking to complete the same program you studied?

1 Yes
2 No

(20) I want you to rank as (1) SUPERIOR, (2) GOOD, (3) FAIR, or (4) POOR, how well the community college prepared you in terms of:

___(a) Technical knowledge and understanding

___(b) General education

(22) Using the same ranks of (1) SUPERIOR, (2) GOOD, (3) FAIR, and (4) POOR, will you please evaluate several more aspects of your community college experience? These include: (For each aspect enter only one response.)

___(a) Shop and Laboratory Instruction

___(b) Academic Instruction

___(c) Counseling given to students

___(i) Overall

FOR NON-GRADUATES ONLY. LOOK FOR THE CODE N AT THE RIGHT CORNER OF THE LABEL.

(26) Would you please tell me the principal reason or reasons which caused you to discontinue your attendance at the community college? Give two or three examples of possible reasons if necessary. (Check (x) each reason that the individual has given.)

___1 Employment
___2 Marriage
___3 Entered military service
___4 Lack of financial support
___5 Transferred to another college
___6 Moved to another area
___7 Lack of transportation
___8 Completed my educational goal
___9 Personal adjustment problems
___10 Lack of interest
___11 Low achievement
___12 Change in educational goal
___13 Other _____

Do you have some additional comments about your previous college experiences?

_____

_____

_____

We appreciate your help with our survey. I enjoyed talking with you (or something similiar).

END OF INTERVIEW. COMPLETE ADDED INFORMATION SHOWN BELOW

Check reason (s) for failure to conduct interview:

___1. Refused
___2. Deceased
___3. Military-Service-Overseas
___4. Civilian-abroad
___5. Already mailed questionnaire
___6. Other

INTERVIEWER'S NAME_____
(Please Print)

APPENDIX J

GENERAL INSTRUCTIONS TO INTERVIEWERS

1. Identify yourself and school (See interview sheet.)

2. Explain your mission (See interview sheet.)

3. Ask the questions verbatum from the sheet.

4. Should the individual not know how to respond appropriately, then give him examples from the questionnaire. Repeat the questions if necessary.

5. Mark the interviewee's responses on the interview sheet according to the specific instruction for each item. Ask clarifying questions if necessary.

6. DO NOT ENGAGE THE INTERVIEWEE IN A RUNNING DISCOURSE ABOUT HIS EXPERIENCES AT THE COMMUNITY COLLEGE OR ELSEWHERE. Tactfully stay with the questions.

7. Close the interview.

VIRGINIA COMMUNITY COLLEGE SYSTEM
SURVEY OF FORMER STUDENTS
TELEPHONE INTERVIEW
Spring, 1972

SUGGESTIONS FOR THE INTERVIEWER IF RESISTANCE IS MET IN THE FOLLOWING AREAS:

1. WHY THE STUDY?

   The information gathered will be used to get a better picture of our students and their reactions to experiences at college and later. We hope that this information will help us develop more effective programs to serve our students.

2. WHY THE TELEPHONE FOLLOW-UP?

   We are calling just a small proportion (5%) of those who did not return the questionnaire. We wonder if those who did not return the questionnaire had different opinions from those who did; and if so, in what ways. It adds to the study by making sure we have as broad a cross-section of answers as possible.

3. WHY DO YOU NEED TO KNOW MY SALARY?

   We are attempting to find out the ranges of initial salaries so we can better counsel students as to what they can expect in different entering positions. We are interested in your later salary to help us evaluate whether your training helped you progress in your job.

4. TOTALLY RESISTANT OR REFUSES TO RESPOND TO THE QUESTIONNAIRE.

   Tactfully close the interview as pleasantly as possible.

5. PARENT, SPOUSE OR BROTHER/SISTER STATES HE IS NOT HOME.

   Ask how to contact him now, or ask when he will return home. Assure them that you are going to take just 3 minutes to survey his college experiences. (Also, that you are not a salesman.)

6. PARENT, BROTHER OR SISTER STATES THAT HE DOESN'T LIVE THERE ANYMORE.

   Ask for his new number, even though it is far away (wherever, within USA). Again assure them that your purpose is to get some information about his college and later experience.

APPENDIX K

LIMITATIONS

1. The findings do not include data on prior work experience of students, full-time or part-time attendance, and day or evening status. These variables would facilitate interpretation of certain findings.

2. The marital status of respondents was based on their status at the time of data collection, not at the time of community college attendance.

3. Any student who had completed at least one occupational-technical course was included in the occupational-technical population. Findings about students with very few credit hours in occupational-technical programs may not adequately reflect the effects of these programs.

4. Any student who had not completed a degree program was classified as a nongraduate; number of credit hours earned was not reported. Some nongraduates earned as many or more credit hours than did graduates.

5. Data analysis in this report was descriptive; no tests of hypotheses were intended.

6. Tests for nonresponse bias indicated significant differences in several variables: father's education, initial salary, opinions on quality of technical knowledge, on counseling, and an overall evaluation. Nonrespondents reported higher levels of father's education, higher initial salaries, higher ratings of quality of technical knowledge and counseling, and a higher overall evaluation.

APPENDIX L

DEFINITION OF TERMS

Certain terms need to be defined according to their use in this report. The following definitions should be noted:

1. Occupational-technical program - a program designed to prepare technicians, semi-professional workers, and skilled craftsmen for employment

2. Transfer program - a program meeting standards acceptable for transfer to baccalaureate degree programs

3. Associate in Applied Science (AAS) degree program - a two-year program designed primarily to provide competence for employment in a specific occupational field

4. Diploma program - a two-year program which normally excludes general education and is designed to provide occupational competence in a specific field

5. Certificate program - a program normally of one year's duration which provides competence in a specific job or family of jobs

6. Graduate - any respondent who had earned an AAS degree, diploma, or certificate in an occupational-technical program

7. Nongraduate - any respondent who had enrolled in an occupational-technical program but had not earned an award

8. Minority - any person (or group) other than white, including Afro-American, Oriental, American Indian, and Spanish-surnamed American

9. Developmental student - a student who had enrolled in a preparatory mathematics or English course as a prerequisite for admission to an occupational-technical or college transfer program

UNIVERSITY OF CALIF.
LOS ANGELES

MAY 23 1975

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